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ON THE COVER: Fuzzy-haired Suzuki freak Billy Grossi on the Carlsbad ledge.

**NEXT ISSUE ON SALE OCTOBER 9** 

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# a lot of variety in dirt riding.

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### QUALIFICATION QUANDARIES

at DB and we'd like your help. It concerns bike tests. Not which ones; that's easy. We test whatever's hot, or new, or exciting, figuring that's the same stuff you're interested in, and we test whatever's popular, hoping we can help you make intelligent decisions.

And the problem isn't how to test. How else is there other than riding the bikes as much as we can?

The problem is in the reporting. We have a lot of riders here, and although we stick to dirt, there's still

There's also a considerable variety in talent around this office. If you take lap times around a motocross course, you get Len and I at the bottom of the list, Don in the middle, George up quite a bit and Gunnar at the top. And except for the top two guys, even that changes with the displacement class. I'm dynamite on a 125 (for five laps), a bit faster on some easy-to-ride 250s like Bultacos and Maicos, and really down with the Open class stuff. The difference between the rest of us and George gets bigger in that class. So does the difference between George and Gunnar.

When you add guest testers, the spread is unreal. Zeal's up there with

We have a definite problem here George on small bikes. Tom Morris is faster yet on 250s. And Jim Connolly blows everybody in the weeds, on anything, except Gunnar.

With trials bikes only Gunnar and Len demonstrate any talent at all. The rest of us fall on our heads.

Out in the desert, Don runs Expert and Gunnar persists in doing things like winning his class in Baja this year.

Would you believe that George doesn't trail ride? It's true. He needs berms like he needs his visual fix of gazing on the Goodvear blimp.

The experience differs too. Most of the staff started out with minis and have been riding nearly all their lives. Gunnar and Jim have more racing experience than most people have driving time. Yet I'm the only one here with any experience at Back East enduros. And only Gunnar and I have ever set knobs on the primo motocross tracks east of the Mississippi.

Yes, there's a lot of diversity on tap here. And a lot of skill, especially when you consider the top desert or trials riders we get to help evaluate special machinery.

But here's the problem. Granted that most motocrossers that are on the market are better than 80 percent of their riders, and add that

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suspension tuning is more possible these days than ever before. And remember what a difference it makes in how fast, how long you can go.

So how should we examine a bike? Run it box stock and have everyone bad-mouth it because it doesn't work? Or set it up right to find out how it will work?

Set it up. Of course.

That's what we've been doing, but the problem is what to fine tune for: Gunnar's speed? My comparative ineptitude? Zeal's 140 pounds? Or Len's 200?

What we've been doing is setting them up for George and Gunnar if the bikes show some professional winning potential. Or if Len and I find we can go particularly quick on some 250, we might step in there, but then George complains that it's too soft for him and it won't turn the way he likes. That influences his perceptions and the part of the test he contributes.

Len might mess with a trials bike, but we leave most 125s, all the 100s and all the trail bikes stock. But when it comes to enduro bikes, we start sorting them out again.

We try to be as fair as possible by getting many riders of differing talents on the machinery and then we wind up repeating a lot of opinions in the text: "So-and-so, an expert, said it slid well, but our novice riders fell down a lot." It gets so diverse that it's wishy-washy. Things were much simpler when bikes were. Some handled, most didn't. You could tell once you rode a couple that did. The last genuinely unpredictable racing bike disappeared in the last year or so. Now there's always someone whose style works with a particular bike. And then the levels of skill start taking over again. To use a recent example: I couldn't ride the 250 Monocross. Up the scale a bit, Zeal liked it. Up a bit further and Tom Morris hated it. And on the top, both Jim and Gunnar thought it was neat.

We want to do the most we can for the people who are going to live with these bikes.

But we wonder about your reactions. Have we put too much emphasis on the novice opinions? Have we left out things you need to know before you buy? Are there ways we can improve the tests?

If you have suggestions on how we can help the riders fronting the cash for this machinery, drop us a line.



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# **BITS PIECES**

LEN WEED



Nobody took Gunnar's picture. All the win-oriented ads had a shot of Al Baker zapping along on the Long Beach Honda en route to the Open class win in the Baja 500 last June. Al rode the first half, where all the photographers were. Gunnar rode the second half where none of the photographers were.

Does anybody have a photo of Gunnar riding? We're not really sure he was there at all.

The other pair of Hi-Torquers around here, Preston and Dick Miller, had some machine problems and took sixth 125.

And slow-torquer Doug Bradbury took a tenth in his first Trials National in Northern California, receiving the first privateer trophy.

Here's Honda's new RTL300 trialer, delivered in time for the National series opener. Marland Whaley aboard, Montesa's Mike Griffitts squinting on. The bike of the Sammy Miller and American Walters. team design recommendations.

Chrome moly frame with boxed downtube. The 300cc engine is an integral part of the frame, there are no bottom frame tubes. New fourinch travel shocks; tilting them forward increases travel at the rear axle. Ground clearance has been increased, head angle reduced. Mark Eggar and Whaley finished one-two in their first National outing in Northern California. Don't look for a production version of the bike for '76 — 1977 is a more realistic prediction.

Needed: Two Eastern enduro types to lend class to 60-mile enduro being held in Puerto Rico sometime around January. Should be rich enough to afford to pay for their tickets, willing to take a week off to enjoy the enduro, Puerto Rico and its hospitality. Must like rum, beer and roast pig.

Contact: Glenn Patron (world's fastest Jewish trail rider, also known as the Carl Shipman of the Caribbean), 53 Hosotos Avenue, Ponce, Puerto Rico 00731.

Join the Navy and see the berms. Actually, you don't even have to join the Navy. Bruce Baron is an honorary Navy recruiter. He and Mike Gillman make the National circuit together and do some promotional recruiting for the U.S. Navy. Other notable go-fasters associated with Navy recruiting are Tom the Mongoose McEwen, Big weighs 198 wet, incorporates many Daddy Garlits, Tom Larkin and Salt

According to Bruce, "The Navy

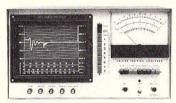
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and motocross racing have a lot in common: physical, mental and mechanical training, opportunity to travel and the spirit of competition. The Navy offers programs in almost every field. They train you, pay you while you're learning, and offer excitement while working at something you enjoy doing."

And don't forget, if you're into Two Days, the Army has a team at Fort Hood in Texas. Maybe the Marines will get into the act next. They could use Lane Leavitt as a spokesman and say something like: We're looking for a few slow men.



Chuck Brenker sent us this photo of one of the new trials riders in the Canal Zone, Panama presumably. Implications abound. Slow sloth?

Quotes of the Month.

"This stuff isn't all it's cracked up to be." — George

"Going up a hill can be spookier than coming down." — Carl Cranke

"Sometimes when he's in he's not in." — Chet

"Alright; check it out." — Gunnar

Omitted in the CR250 test in the July issue was how we shaped up the rear end suspension. Simple. Bolted on a pair of S&W racers shocks that Al Baker gave us. Then he took 'em back because Pierre wanted to try them. Pierre went with the S&Ws for the opener at Hangtown. Rex Staten has been running them on his Maico. Much of the development work on the shocks was done on Elsinores and both of our riders who got a chance to try them before they were whisked away really liked 'em.

Does the U.S. recognize Red China? DIRT BIKE recognizes Taiwan, especially T. Hsu from

Continued on page 15

### **HOT ITEM COOL HEAD**



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### ASK THE EXPERT

by
PRESTON PETTY



### PIPE CAN'T COPE

I own a Can-Am 250 MX-1 that I use for hard trail riding. I would also like to enter some enduros this spring. The problem is that the exhaust pipe runs under the bike and is always getting banged up on large rocks. It also reduces ground clearance.

Does anyone make an upswept pipe for this machine, or can I have one custom-built somewhere? I would like to keep the same powerband without increasing the noise. I've tried just about all the bike shops around here, but they're all clueless.

Maurice Dore LaSalle, Canada

Can-Am has been indicating that an accessory high pipe is available. According to Herb Uhl at Idaho Bike Imports in Boise, he has not gotten any indication the pipes are now available. Check with your local dealer.

Chuck Rodman at Skyway in California has also indicated that he is working on an upswept pipe for that machine. I suggest you try him as well as Whisperin' Smith. It generally takes quite a while from when a manufacturer starts producing an item to when most of the dealers have it.

### MILLING MULLING

I admire your column very much. I am a mechanic and there is always some little bit of information I can grasp from you or the rest of the writers.

This may sound funny, but when the head of a motorcycle is milled I could only figure it means the gasket surfaces, and not the dome. If I'm wrong, please explain.

Chris Goldzwig Winter Park, Florida

Most of the time when they speak of a milled head it means taking some amount (.002, ½mm) off of the gasket surface and not changing the shape of the combustion chamber, only increasing compression ratio. Most of the time it is not a good idea to change the shape of the combustion chamber itself. Usually the factories have spent much time trying different of combustion configurations chambers to determine which one works the best with their type of flow pattern from the transfer ports up the cylinder across the top of the head and back down the cylinder and out the exhaust ports. For instance, on some motorcycles if you take a wedge or oval shaped combustion chamber and cylinder head and replace it with a cylinder head that has a flat top — like Maico combustion chambers — it kills the horsepower even though you may have raised the numerical value of the compression ratio. Basically, most of the combustion chambers' shapes are determined on a cut-andtry basis at the factory, and with the better, higher octane fuels we have in this country, as well as additives in your oil, you can increase the compression ratio a point or two by simply milling a quarter to one millimeter off the gasket surface and retarding the timing a small amount to offset the increased flame front travel due to the higher compression ratio.

Whatever amount of messing

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STEVE'S BULTACO 7627 Van Nuys Blvd. Van Nuys, CA 91405 (213) 780-6300 (213) 994-7468 SALES PARTS around you do with raising compression ratios or changing/ modifying the head, it's generally time well spent to take a little piece of clay, press it down onto the side of the piston near the rings, bolt the head on tight, turn the engine over a few times with the spark plug removed, then pull the head off. Carefully cut through the clay and make sure you don't have less than about one millimeter clearance at the closest spot between the piston and any portion of the cylinder head. If you have less than that, it can sometimes cause problems with erratic or premature combustion due to excessive squish of the gas prior to actual ignition from the plug. Also, as the rod gets a little looser it stretches at higher rpm, and combined with the piston expansion you wind up with the piston hitting the head. It won't live long that way. So you see, all that time you thought was wasted when you were playing with clay in kindergarten you can now use in race preparation on your motorcycle.

ZIMBASI AGAIN!

Hey you guys! Why haven't you Continued on page 20

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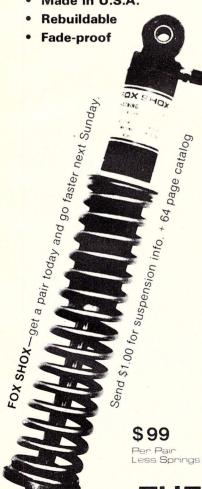
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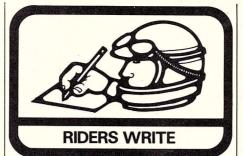
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### ARKANSAS GUARANTEE

In March I bought a brand-new 400 Yamaha Monocross. When I first started the bike, it had a terrible rattle in the top end. I asked about it and was assured that it was common for this model. Sure enough, the dealer's other 400s made a lot of racket too. Fool that I am, I went ahead and rode the machine.

Now I have a new motorcycle with four hours on it that needs to be bored already. I realize that a racing machine can't carry a warranty for obvious reasons, but I think a bike should be right when it's sold. The problem is not the dealer, but Yamaha. They won't warranty the piston and cylinder.

Barry Stevens Grants Pass, Oregon

All racing bikes that we know of, except Bultacos, are sold "as is." That's an Arkansas Guarantee: if it breaks in half, you own both halves.

Though the manufacturers disclaim everything on race bikes, most will warranty obvious defects in the machine. They don't have to, but sometimes they do. It's strange that Yamaha won't in this case.

### **TESTY RESPONSES**

After reading your article, "Cafe Enduro," in the March issue of DIRT BIKE, I feel many of your test riders weigh far too little to be riding that much bike.

William L. Hain Reading, Pennsylvania

Now that's a very complimentary criticism. Thank you.



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This is in response to certain remarks made in the Rokon test in the April issue. Most particularly the remark about the moisture content of the atmosphere in the great state of Oregon. Whatsamatta? You sunshine boys can't handle a little mud?

You prunepickers are spoiled. If the day ever comes when you can survive Mt. Hood's Alpine Trial on a 608 Clews the day before Christmas. then we might let you lick the mud off our leathers.

You should be grateful for our weather. Wasn't it the big influence behind Preston Petty's products, since plastic doesn't rust? Besides, our climate quickly eliminates the inferior bike riders; if you fall off your bike in Oregon, you stand a 90-percent chance of drowning.

In conclusion, we hereby invite you to test your motorcycles in Maine or Iowa.

> Mike "Catfish" Umbras John "Webfoot" Derr Milwaukie, Oregon

P.S. We do NOT use mildew preventative for underarm spray; we use duct tape.

### LIGHT THE WAY

This prayer has been sent to you for good luck. The original came from the Netherlands and it has been around the world nine times. When you receive this prayer, make 20 copies and mail them to people who need luck.

Do not keep this letter. Do not break the chain.

Constantine Diaz received the chain in 1953. He asked his secretary to make 20 copies and send them. A few days later he won the lottery of 2 million in his country. Carlos received the letter, lost it and forgot about it. A few days later he lost his job. He then found the chain and sent it to 20 people. Nine days later he got a better job. Zarin Berrachelli received the chain; not believing it, he threw it away. Nine days later he endoed. An RS officer received \$775,000. Don Elliot received \$60,000 but lost it when he broke the chain. While in the Philippines, General Walsh lost his life six days after receiving \$70,000.

Please send 20 copies and then see what happens on the fourth day after. Add your name to the bottom

Continued on page 12



### **ELEPHANT SHOCKS**

58 square inches of cooling area, 145 cc's of Fortner silicone fluid. 3 inch diameter fins, Koni dampers, S & W springs with choice of spring rate, damping adjusted for your

Set of two ....\$129.95

Elephant Shock Body Kits for Konis...... \$64.95

TO TAME THE

ROUGHEST RIDE

### **RHINO GP SHOCKS**

110 cc's of Fortner silicone fluid, 23/8 inch diameter fins, Koni dampers, S & W springs with choice of spring rate, damping adjusted for your bike.

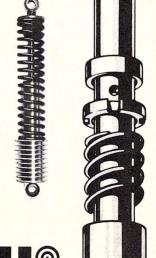
Set of two .... \$117.50

GP Shock Body Kit for Konis...... \$49.95

Poppy distributes: S & W Engineered Products - Jim Davis Motosport - Moto-X Fox Products - Koni - Fortner Fluids - Endura Products

820 N. Hollywood Way, Burbank

California 91505, (213) 845-2641



### **GORILLA FORKS**

Poppy's competition engineers are at it again. Gorilla Fork Kits are designed with Betor style damping and increase fork travel to a full 8 inches. Provides smooth progressive fork damping action, and eliminates arm and shoulder fatigue. Excellent combination with all type rear suspension setups, but a must for L.T.R. suspensions to compensate for the increased fork stress and unnatural balance. Available for the following bikes:

KAWASAKI

KX 125, KX 250, KX 450 CZ

250, 400

YAMAHA

250, 360, 400, YZ, MX & Monocross

Models

SUZUKI 250. 400. '71-'75

Models

**HUSQVARNA** 250, 360, 400, 450

Set of two

(except KX 125).. \$45.95

Betor replacement & KX 125......**\$28.95** 

### **FORK TRAVEL EXTENSION KIT**

Kit extends fork travel one full inch. Available for most pop-

ular bikes. State make and model when ordering.

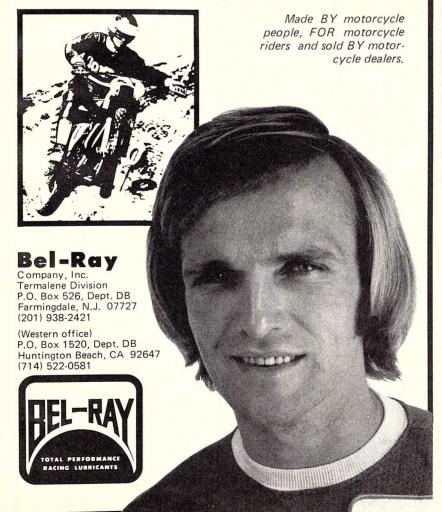
Only..\$5.95



# HORDA RIDER, PERRE...

is out to win races! Pierre Karsmakers is one of the top AMA riders in professional motocross competition. He knows it takes a well prepared machine to win. Both his Factory Hondas, open and 250 class, are race prepared with Bel-Ray Lubricants. Pierre Karsmakers runs Bel-Ray 2-Cycle Engine Oil — it won't foul plugs and gives optimum power because it burns clean. High speed changing of gears can take its toll, so Pierre's transmission is filled with Bel-Ray Gear Oil — it absorbs heavy shock loads and fights friction. Front forks are filled with Bel-Ray Fork Oil available in 5, 10, 20, 30, 40 and 50 wts. — the right weight for the machine, rider and riding condition. The new rear shocks require a special oil made by Bel-Ray — LT 100, LT 200, LT 300. Bel-Ray Racing Chain Lube keeps the drive chain lubricated and waterproofed throughout long, grueling races. Bel-Ray Grease for wheel bearings and swing arm, and 6 in 1 for cables, make Pierre's Honda "race prepared".

These products are all available. Look for the distinctive blue rack at your dealer or cycle shop. Whether you ride a Honda . . . Yamaha . . . Suzuki . . . Kawasaki or other machine, Bel-Ray is the best you can buy.



RIDERS WRITE Continued from page 11 of this list and leave off the top name.

L. E. Ligon Lvnn Wineland B. G. Lackey Gary Johnson D. M. Jones Max Switzer Bryar Holcomb Mike Patrick Paulette Napoleone Steve Hurd Fred James Lars Larsson Cherry Stockton Carl Berggren Tom Schmid Gunnar Lindstrom Paul Ashford Chet Heyberger Jerry Kindsvogel Len Weed

OK, that takes care of our 20 copies. We put it here because we all need some luck. And don't send any of your 20 copies to us. Pleeze.

### BIGGER THAN THE CANNONBALL

Just thought I'd drop you a note to say how much I appreciated the May "Checkpoint" — How to Buy the Right Bike for You. Sure am having fun with my little red Gilera. One question though, could you please give me information on waterproofing the bike? I want to enter the Big One: New York to France.

Ron Ceton Riverside, California

### MISTAKE #11,4361/4

In the June "Bits and Pieces" you said that the picture was the high zoot, padded, plush, well-lit DB office with Gunnar, Chet, Len and Don in it. What I saw was a non-plush, dimly lit, low zoot, unpadded GYDBG.

So you blew it again. How come? (1) Rondo is still at the GYDBO.

- (2) You've been drinking too much.
- (3) You're afraid to show the readers the real GYDBO.
- (4) You like to keep people in suspense so you can sell more magazines.
- (5) You want to find out who reads "Bits & Pieces."
- (6) You've just gotten into the habit of screwing up all the time.

Art Brode Littleton, Connecticut

P.S.: Is it true that George is now a trials freak?

The P.S. isn't true, neither is #1, but all the rest are.

# Fast Track to a Cool Job!

Good Pay! Steady work!
Big Demand!

You Get Cycle Tools and Test Instruments to START YOU FAST!

Learn at home in spare time to be a

# Motorcycle Mechanic...

NO PREVIOUS EXPERIENCE NECESSARY Learn everything from minor tune-ups to major overhauls...even if you're a beginner. Experts show you what to do, how to do it—guide you every step of the way to become an expert motorcycle mechanic. Can you imagine a better way to earn your living? And to make it even better, the pay is great—whether you choose to work in a cycle shop for somebody else or decide to start your own motorcycle repair business. Now, thanks to North American, there's a fast easy way to get the training you need...at home in your spare time. No need to quit school or your job.

# Motorcycles are Big Business ...and so is Fixing Them

There are more than 3 million motorcycles registered in the U.S. today. Plus an estimated 3 million more dirt bikes.

But there are fewer than 10,000 motorcycle mechanics

But, there are fewer than 10,000 motorcycle mechanics available to repair them. (Imagine only one mechanic for every 600 cycles!) No wonder career opportunities are so great for the skilled mechanic. And they're getting better every day! The door is open to you now. Rush coupon for FREE "Motorcycle Mechanic Career Kit."

### SEND FOR FREE "CAREER KIT"

Get all the facts now ... without obligation. Be the first in your neighborhood to cash in on the big demand for motorcycle mechanics. Mail the coupon, today, sure! Rush This Coupon

oday, sure! Rush This Coupon
Now for FREE "CAREER KIT"

Careers by Home Study
NORTH AMERICAN SCHOOL OF MOTORCYCLE REPAIR, Dept. EF095
4500 Campus Drive. Newport Beach, CA 92663
Rush FREE "Career Kit" on how I can become an expert Motorcycle Mechanic.

NAME \_\_\_\_\_\_\_AGE\_\_\_\_AGE\_\_\_\_

Learn at hor ride a bike for fun...

LEARN TO FIX IT FOR PROFIT...

### EASY-TO-UNDERSTAND LESSONS GIVE YOU PROFESSIONAL "KNOW-HOW"

Everything is explained in easy-to-understand language, complete with drawings, diagrams and photographs. You'll learn all about engines, carburetion, fuel systems, electrical systems... how to align wheels, repair transmissions and clutches... replace cylinders, rods and bearings, and much much more! Plus you'll get trouble shooting and timesaving "tips" that make you a real "pro." In short, you'll learn everything you've ever wanted to know about motorcycles.

### SPECIAL CYCLE TOOLS & TEST Instruments included to start you fast!

Professional tools plus your North American "know-how" turn you into a skilled mechanic. We teach you how to use wrenches, sockets, impact screwdrivers, timing lights, electrical test instruments, compression gauges, vacuum gauges, degree wheels, soldering irons, ignition wrench sets, dial indicators and much, much more! We even include a set of special cycle tools and instruments to get you started fast! These are yours to use during your training . . . and yours to keep in your actionpacked career as a motorcycle mechanic. Find out all about it now. Send for FREE "Motorcycle Mechanic Career Kit." No cost, or obligation . . . now or ever! Rush coupon today.

### MAKE NEW FRIENDS — BIKE OWNERS WILL SEEK YOU OUT

Be the envy of friends & neighbors as they flock around to watch you tear down and tune-up all kinds of motorcycles. And just think of the satisfaction in knowing you've got the best performing bike in town. Plus, you can make extra dollars fixing motorcycles for your friends and neighbors.



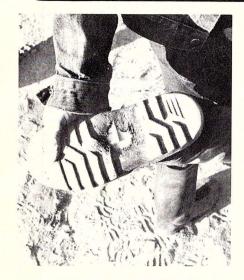






NORTH AMERICAN SCHOOL OF MOTORCYCLE REPAIR 4500 Campus Dr., Dept EF095 Newport Beach, CA 92663

# HOT SET-UPS



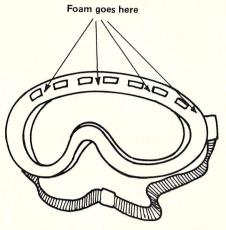
### TRIALS BOOT REPAIR

Those funky rubber boots — that the observed trials riders wear also wear out. The hot setup is to use the black rubber goop that comes in a tube from GE or whoever and use it liberally. According to our informants, the room temperature vulcanizing rubber lasts longer than the original.

### FILTRON FOR YOUR EYES

After four years of racing in the desert you finally decide that your eyeglasses aren't the hot setup. Even though they keep rocks, puckerbushes and jackrabbits out of your eyes they still let copious amounts of sand and dust past. With all this foreign material in your eyeballs you just can't function properly. Your eyes start watering; you can't see; down you go on your duckbill. First thing Monday morning you hit your neighborhood shop. Gotta get some goggles. Find a pair you like. Lay the moola down and out you go. Next week you're sitting on the line. The banner drops; off you go to the smoke bomb. Your usual bad start leaves you riding in the dust of 700 other guys. As usual, your eyes are watering from the dust. That's not supposed to happen!

A sad but true fact: even though some goggles cost a fortune, they don't always work. So, what you have to do is keep the dust from entering the goggles. Here's how. Take the thin piece of foam that



comes on the hangers you get from the dry cleaners; put it across the vent holes on the goggles. This will keep the dirt and sand out. Maybe a little oil on the foam will make it work even better. Just like a Filtron for your eyes.

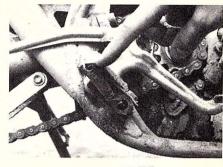
Thanks to Joe Cline for another hot setup.



### PAJAMAS, YES, PAJAMAS

Pajamas are the hot setup when the lining in your leathers starts to go, or if there never was any. You go out riding and sweat a lot into your cotton pi's. Then pull off your leathers and throw them into the corner of the garage; wash the pajamas like you would the rest of your clothing. Your leathers won't stink up nearly as fast and the cotton pj's keep you cooler.

Just don't let anyone see you in blue rabbits all over them.



### PEG PULLER

If your footpegs don't come back after you've whacked a stump with them, you can cure the problem with a cheap spring from any hardware store.

Thank Tom Morris. Again.



### SHOULDER PROTECTION

Someone told us it only takes about seven pounds of pressure to break a collarbone. And if you're wearing a set of pads, you'll spread the impact. Might save you from a separated shoulder, too. Never can tell. But money gets into the picture as usual. Jim Davis pads run about \$18 or \$31 for the chest protector kind; the Iofas are even more These Cooper units, expensive. however, cost the man in the photo about \$12 in a discount store. They're Canadian hockey equipment. Incidentally, if you ever see this guy wearing fancy Torsten Hallman leathers with DIRT BIKE written down the side, rip either the BIKE or the DIRT off. He's pajamas with pink elephants and incredibly slow, slower even than Chet — and that's unforgivable. • BITS & PIECES Continued from page 7 Kaohsiung. Sent us \$56 for a two-year airmail subscription. That's what we call a devoted reader, a mere \$2.33 per issue.

Ever wonder what goes on when you call up a major distributor requesting a test bike? All sorts of things, at least the ones who return your calls. You're looking for a 125 racer, and what do you get laid on you? The rape capital of the U.S. is Memphis, Atlanta tops the murder charts and burglars burgle more in Phoenix. Wonderful. For more information about the jerseys and the crime rates write . . .

Large administrative bodies? Arrrrgghh. Cutie by the FIM last spring. Each year the Trial de España is held in Southern California to raise enough money to send some top riders to compete in the Spanish Round of the European Trials Championship. This year Bernie Schreiber (Bultaco), Marland Whaley (Honda), and Mike Griffitts (Montesa) got the nod as top three plates in Southern California. But only Mike got to ride. Why? Marland and Bernie are under 18. The FIM said they were too young. National Numbers Two and Ten and they're too young? What's confusing is that the FIM gives motocross licenses out to 16-year-olds.

Alonzo Dupree finished off a recent letter thusly:

And so, as the sun slithers slowly behind the mist-shrouded slag heaps of mysterious Lackawanna we must bid adieu and farewell from the enigmatic, effete and faintly elitist East, knowing in our hearts that, should the San Andreas Fault fail and this part of the country break off and sink noisily and gurglingly beneath the turgid and polluted waters of the broad Atlantic, there to join other relics of western civilization including Atlantis, the Spanish Armada, several million cubic feet of New York City garbage and the crew of the Marie Celeste, we will not be forgotten.

Sure is neat getting mail.

A moment of silence. Lower your head. Dust to dust, ashes to ashes.

Thunderdog is dead. Not the bike, just the name. Hodaka's new 250 trailer is now officially the Thunder, just like the football team in Portland. How can the people who gave us Wombat, Combat Wombat, Super Combat, Dirt Squirt and Road Toad drop the dog?

Boyd Reynolds, Director of PATRA (Pennsylvania Trail Riders Association) sent Chet some stickies. Then he got on our case about the calendar and how it screwed up his scheduling last Thanksgiving, misspelling grief in the process. And

to top it off he asked for a mention of PATRA, whose address is Timber Hill, Henryville, Pennsylvania 18332, and whose activities center around legislation, trails and education.

The Riverbottom Grand Prix struck again at Riverside Raceway during the Great Bear GP. The cast included: Manuel Mayes, Juan Fishback, Reuben Tibblin, Progusto Nostrello and the crack of Doom, Commander Borg, L'il Kimba, Ranger Bob, Diesel Dave, Teddy

Continued on page 18





# NEW PRODUCTS

So you've been ordering stuff out of New Products - or just writing for info - and you haven't been mentioning DIRT BIKE. Do you realize how that makes us feel? Like homemade you-know-what. How do you expect all those companies to even know we exist? To know that only DB has a loyal readership? That we're in tune with what's happening? Oh never mind. But you better mention that you saw it here or we'll have Pete Dill draw you through Lake Erie with his Aquavarna.



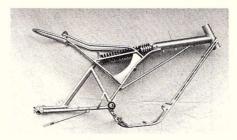
### BAKER'S DOZEN

Six Swedish tungsten-wound wire and aluminum plates. What more could you want for your 125 Elsinore? Maybe a little cheese and Street, Van Nuys, California 91403. some french fries to go? The springs are one silly millimeter longer than standard. This heavy-duty clutch replacement kit is designed to outlast stock CR clutch pieces. It fits MTs too. Six springs. Six plates. Twelve marvelous pieces. A Baker's dozen. Order from Al Baker Racing and Development, 15174 Raymer, Van Nuys, California 91405; (213) 997-7055.



### **BRONZE** YOUR SWINGARM BUSHINGS

Remember bronze baby shoes? Now you can have bronze bushings for your RM or TM. Much more useful than baby shoes. Priced at \$11.95 from Cycle Products West, Inc., 11900 W. Pico Blvd., West Los Angeles, California 90064; (213) 477-0997.



### SPARTAN ELSINORE MONOSHOCK

Monoshock Products has constructed a monoshock chassis strictly for CR125s. The frame features aircraft quality hardware and lightweight 4130 chrome alloy tubing. When assembled the motorcycle will weigh 153 pounds.

According to the manufacturer, nothing will out-accelerate the Spartan. All that's necessary to complete the bike is an air box and any one of several air/oil shocks, all available from the manufacturer.

Price is \$400 and they want a 25-percent deposit on all orders. springs. Six pressure-bonded cork Literature on choosing the shocks you need is also available. Write: Monoshock Products, 15174 Raymer



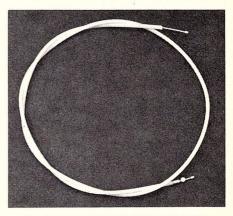
### DOUBLE PROTECTION

"Both foot and ankle get tremendous support from the buckle/lace-up combination. The seven buckles each offer five-position settings at the most strategic points on the boot, guaranteeing non-slip support at the exact balance point where maximum support is still achievable with maximum comfort. The inner hook and eyelet lace-up system gives strong ankle support, 92505. Tell them we sent you.

and when coupled with the buckles, may be adjusted to its comfortable position . . . '

Enough. In any case, it's a neat idea and maybe you should try them if you've been bending your feet the wrong way a lot.

Yamaha Parts Distributors, Inc., DIRT BIKE PRODUCTS, 6610 Orangethorpe Ave., Buena Park, California 90620.



### CABLE FITS THE UNIVERSE

Barnett Tool & Engineering has a new universal nylon throttle cable. These cables aren't affected by extreme temperatures, don't require lubrication, and won't kink or tear. All are complete with twist grip and carburetor fittings.

Write them if you're interested: Barnett Tool & Engineering, 4915 Pacific Blvd., Vernon, California 90058. Mention us.



### YZ K&Ns

Now that everyone has taken to the desert with their new monoshocks, they're gonna need a real air cleaner. K&N Engineering knew it. Their new models fit the stock YZ250 and 360 air boxes. Check them out at K&N Engineering, P. O. Box 1329, Riverside, California

# Amazing \$1 Offer 10 Super Great Iron-On Transfers

Special Offer for all 10 Top Selling Designs—Enough to dress up your entire wardrobe. Each bright color high-quality vinyl transfer measures a full 16 square inches and is made to stand up to washing after washing. This incredible deal may not be repeated this season. So please order early to avoid disappointment.



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Please rush me the complete set of 10 full-color, in enclosed:	on-on transfers. I have	Please rush me the complete enclosed:	set of 10 full-color, iro	n-on transfers. I have
☐ \$1.00 plus 35¢ postage and handling for one set	of 10 iron-on transfers.	■ □ \$1.00 plus 35¢ postage an	d handling for one set o	of 10 iron-on transfers
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ADDRESS		ADDRESS		
CITYSTATE	ZIP	CITY	STATE	ZIP

### BITS & PIECES Continued from page 15

Whitetiger and the world's largest Invader.

Advertised features included seeing Phil Shipley cut the course, Bob Evans crash the party, the burning bush, and the '66 Cad break the surly bonds of gravity.

Rules were simple. Leave your midwest morality in Newton, Kansas. Points paid from Tempe city limits. BYO stimulants. This one is for mutha. Special Note. Sidecars are for sissies.

with switchboard Dealing

operators:

'Who's this calling?"

with?"

"What's that again?" DIRT BIKE.

Dirt as in filth.

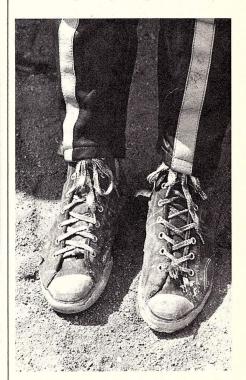
Bike as in supporter.

T.E. Lawrence, better known as Lawrence of Arabia, at one time held more than 90 patents for motorcycle parts. We received that item from the winner of Baz's boots.

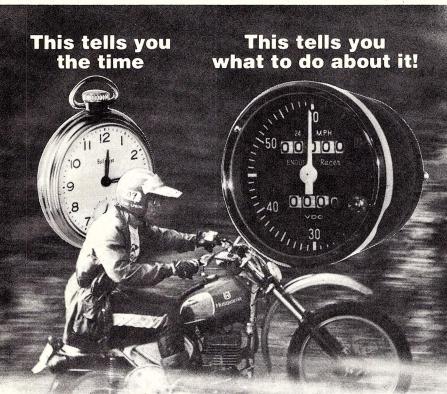
Tom Morris' mother bakes neat chocolate chip cookies. They should "And who did you say you're be required sustenance for all street/ trailbike testing.

> Chet received the following letter from former MXA Editor Mike Kerley, now freezing his . . . off up in Canada.

> Here ye be. I think it's accurate enough - which is more than you can say for my typing. Feel free to stretch the photos to cover 20 or more pages, making your job easier and me richer in, say, oh about 1983. Which reminds me, tell Helen I'm starving . . . Don't suppose that'll do any good, but what the hell. Remind her I'm supposed to be paid on acceptance. Remind her that we're really good friends. Remind her that I was trained in demolitions.



Mary Lou said, "Baz, gimme your boots" and she got 'em. Next she tried, "Zeal, gimme your Jeepers." Didn't work. 'Course, he wasn't trying to give them away. He doesn't have a monthly column. Along with his official high zoot press hat Zeal wouldn't be without his purple and white laced black Sears high-tops. Do the Boston Celtics still wear black high-tops? Does anybody? Let's bring back black high-tops.



### It works for National Enduro Champion Dick Burleson . . . It'll work for you!

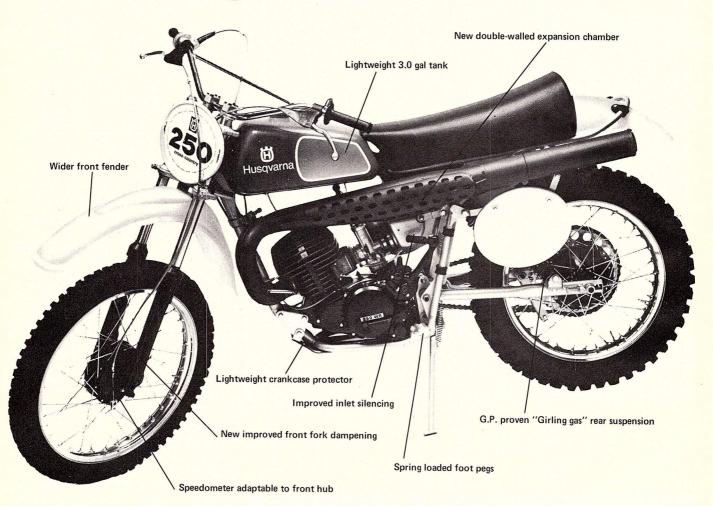
Dick Burleson credits his VDO Enduro Racer instrument and trusty pocket watch with helping win his national enduro title. Between the two instruments, he keeps a highly accurate account of time and distance . result being consistent wins! For enduro's of 24 mph average the VDO Enduro Racer provides a one hour dial pointer that works directly in relation to your speed. The trick is to have the timer come around to 60 minutes at the same time the watch comes

around to the hour. Right on! VDO's Enduro also provides a mileage read-out and a trip-counter, settable and resettable in tenths of miles, which is vital for enduros of any varying average speeds. So between the watch and your VDO Enduro Racer, you've got a whole lot working for you from start to finish. A great combo for the enduro beginner, a necessity for the pro rider. Details at your dealer or write VDO direct.



# Dick Burleson didn't ride our stock 250WR as is to 4 straight National Enduro wins.

# He changed the handle bars.



Evolution — it created our new cross-country 250. Trails are getting more rugged. Speed continues to climb. A tougher, faster machine was needed. So we took our G.P. 250 motocrosser that Kent Howerton rode to the Trans-AMA Championship, fitted it with a six speed wide ratio gearbox, de-

signed a new quieter double-walled expansion chamber, and improved intake and engine silencing. The result is a machine that carries Dick Burleson to the winners' circle time after time — it can take you there too!



MOTORCYCLE INDUBTRY COUNCIL

Husqvarna Motorcycle Co., Inc.



### 

You take great care in selecting a motorcycle why not do the same when you get your riding apparel. When you choose Belstaff, you're in the right gear no matter what kind of bike you have and no matter how rough the weather and terrain may be.

Belstaff is the world's leading manufacturer of quality made competition riding suits. The Trialmaster Professional two-piece suit is a classic in its own time. Made of tough "tearproof", chemically treated reinforced natural cotton that "breathes" yet will remain absolutely waterproof even in a driving rain. Comfortable and stylish, the Trialmaster will withstand severe punishment and abuse and last for years! Widely Copied But Never Equaled—Your Best Gear.



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MOVING?	Mail form to DIRT BIKE Magazine Subscription Dept
Use this form to notify us at least 6 weeks before you move. Attach address label from a recent issue or print your name and address exactly as shown on the label.	Box 317, Encino, CA 91316 New Address
Current Address Name Address	Address
CityStateZip	CityStateZip

### **ASK THE EXPERT**

Continued from page 9

tested the Zimbasi 100MX? My neighbor has one and it's really fast. I think he's a factory rider or sumpthin'. Are the Zimbasis available to regular folks or are they one-of-a-kind factory prototype racers?

Also, how can I keep my Hodaka Super Rat from shearing flywheel kevs?

> Daniel Allford Austin, Texas

Ah, you refer to the world-famous Zimbasi machine. It's certainly a very secret works machine. So secret, in fact, that the factory is not even aware of its many concealed trick components.

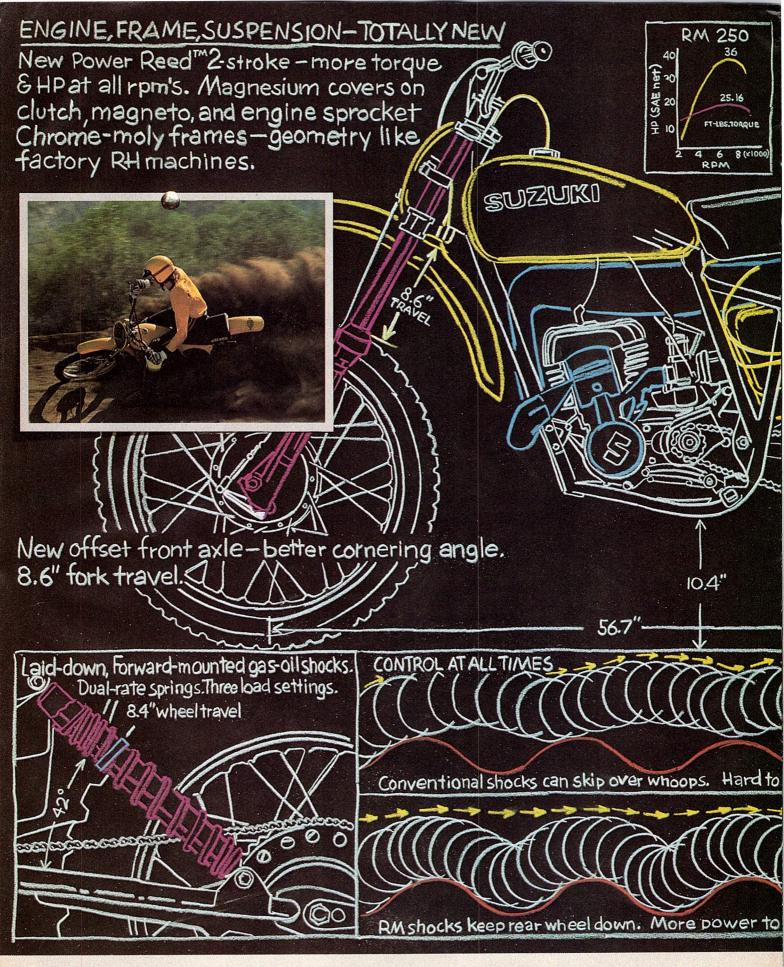
All seriousness aside now, once you start shearing flywheel keys on most any motorcycle, it will tend to shear them easier each time thereafter. Frequently when a key shears, it builds up a little ridge of metal on the shaft adjacent to the key-way slot. This prevents the flywheel from seating fully around the conical portion of the shaft. Full contact in this area is essential in keeping the flywheel on.

How to fix it: remove the flywheel and the flywheel key. Take some Dykum or machinist bluing, or lacquer (if you're poor like most of us are), and paint the tapered portion of the crankcase very lightly. Place the flywheel back on, without the key, and rotate it slightly. Remove it and look for some spots where the paint is taken off. Those are the high spots.

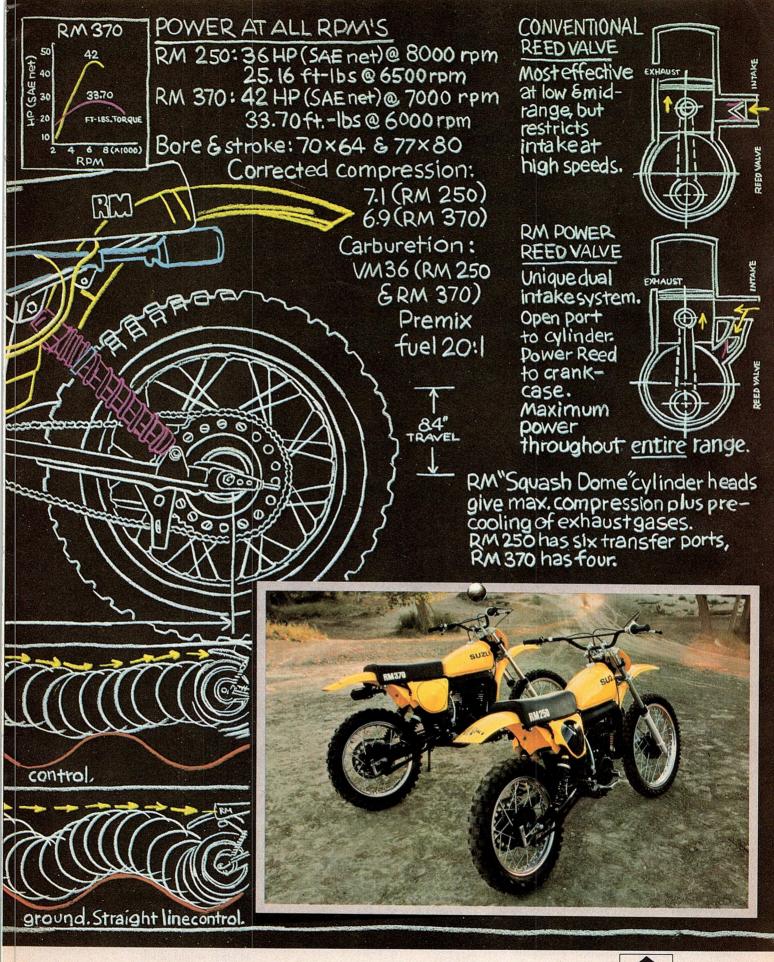
Very carefully file, or sand away, those high spots and re-blue the surface. Try it again and check for more high spots. Finally you will approach full contact around the conical section. Then you can replace the key and torque it down and it will stay.

If you're quick, dirty and hatchet, take the flywheel off and run your finger over that area, hitting it a couple of times with a file to get the big protrusions down flush. Then get a little tube of Loctite (Lock and Seal, it's called), their low-to-medium adhesive sealant, and coat the shaft and the inside of the flywheel and jam it on tight. It'll take more pressure with the puller to get it off next time, but at least it lessens the chance of it coming off when you don't want it to.

# THE NEW SUZUKI RM 250 AND 370 ARE HERE



We didn't win all those World Champion



ships without learning a few tricks.



### DIRT BIKE WRENCH RACING SOCIETY, EPISODE #4

At the last meeting we began with a carburetor at wide-open throttle and noted that fuel flow in that condition is controlled by the size of the main jet down in the float bowl.

Then in an exhibition of massive bravery and damn-the-consequences, we cranked the throttle vigorously down to half-open. At a more leisurely pace, we saw that the relationship between the tapered needle and needle jet regulates fuel flow at mid-throttle. The main jet is content to let more fuel through than necessary — generously allowing the needle jet to do its thing.

On indication that the next logical subject of interest was operation with a nearly closed throttle, the meeting broke into disorder. Some guys went outside and started riding their motorcycles up and down the walls, while others organized games of scuffling and grabass. When your president got severely bitten on his thumb, the meeting was dismissed.

However, it has since been observed that during the last month 32 percent of the motorcycles had problems starting and 43 percent died while idling. This caused considerable annoyance because restarting and precise control of the throttle is difficult for a guy with a bandaged thumb.

So with renewed humility, everybody promised to listen quietly to the last part of this program on various peculiarities of the carburetor.

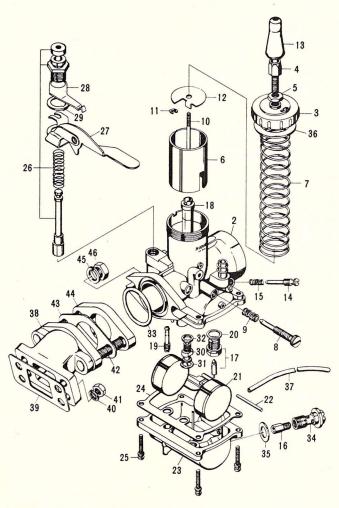
### GETTING THE THING STARTED

When the engine is warmed up already, there is no particular trick to it. Just open the throttle part way, go whango with your foot and it starts.

When it's cold in there, the problem is that gasoline drawn into the engine tends to remain in liquid form and just lie around not evaporating. To make a combustible mixture in the cylinder some of the fuel has to evaporate and make a vapor. The vapor mixes with the air and when it's right, you can ignite it with a little spark.

If there is not enough fuel, or too much, you can whango until the race is over — which of course denies you the privilege of breaking your machine out there.

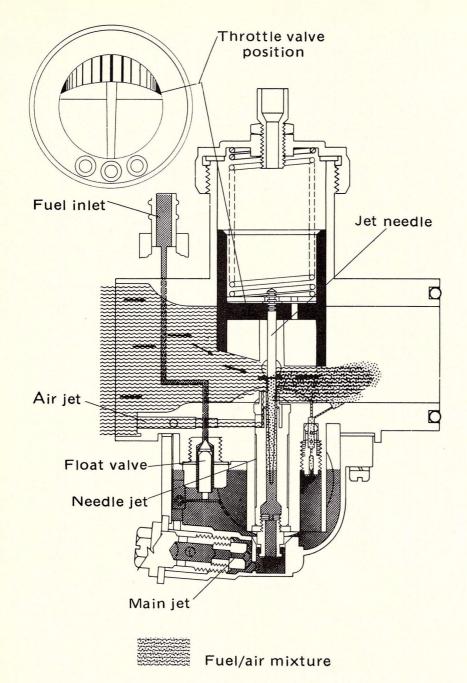
How to be happy when the throttle is nearly closed STARTING YOUR BILLE by CARL SHIPMAN



Courtesy of a Hodaka shop manual, here is an exploded view of a Mikuni with all the parts you have been avidly reading about.

- 2 Mixing chamber body
- 3 Mixing chamber top
- 4 Throttle cable adjuster
- 5 Throttle cable adjuster locknut
- 6 Throttle valve (slide)
- 7 Throttle valve spring
- 8 Throttle adjuster
- 9 Throttle adjuster spring
- 10 Jet needle
- 11 Jet needle clip
- 12 Cable seat
- 13 Mixing chamber top rubber cap
- 14 Air screw
- 15 Air adjusting spring
- 15 Air adjus
- 16 Main jet 17 Float valve and seat
- 18 Needle jet
- 19 Pilot jet
- 20 Float valve gasket
- 21 Float
- 22 Float pin
- 23 Float chamber body
- 24 Float chamber body gasket

- 25 Float chamber screw
- 26 Starter plunger unit
- 27 Starter lever
- 28 Starter lever spring
- 29 Starter lever washer
- 30 Needle jet bolt
- 31 Needle jet O-ring
- 32 Needle jet washer
- 33 Carburetor O-ring
- 34 Banjo bolt
- 35 Banjo bolt washer
- 36 Mixing chamber top gasket
- 37 Vent pipe
- 38 Inlet manifold
- 39 Inlet manifold gasket
- 40 Inlet manifold spring washer
- 41 Inlet manifold nut
- 42 Inlet stud
- 43 Inlet gasket
- 44 Heat shield block
- 45 Spring washer
- 46 Nut



As the throttle slide is lifted toward mid-position, fuel flow from the idle circuit tapers off and from there on up it's flow through the main jet and needle jet. This drawing shows the Mikuni with the main jet you can change by taking out the screw in the bottom of the float bowl.

When only a little bit of the fuel is vaporizing, you have to put in a great, excessive amount of liquid fuel just to get enough of it vaporized to start the engine. That's called choking or priming the engine.

### THE TICKLER

Old-timers fondly recall that meeting when we discussed the toilet-tank principle and showed how a float and float valve in the bottom of the carb keep the fuel level at the right height in the bowl—just like the float and valve in every properly-equipped automatic toilet.

Non-automatic toilets don't have that nicety, but the day is long past when a sportsman could win anything riding on a non-automatic toilet.

Anyway, some carburetors, such as Bing or Amal and others, have a little plunger on the side, called a tickler. When you push down on it, it reaches into the float bowl and forces the float downward. This opens up the float valve and lets gasoline flow into the bowl until you release the tickler button.

That causes the fuel level in the bowl to be too high for normal operation, but just fine for priming the engine. When you rotate the engine by whango on the kickstarter, the airflow through the venturi passage can pick up a lot more gasoline because the fuel level is higher in the bowl. It can be sucked up and out into the airstream more easily.

The usual drill is to hold down the tickler long enough to say "DIRT BIKE Magazine" in a loud voice. Then hold the throttle about one-quarter open and kick it. If it doesn't start, repeat the procedure in a louder voice and try it again. Not only is this an efficacious method of starting up, it helps sales, so if you do it in a really loud tone of voice we'll appreciate it. But you still have to do your own kicking.

Stroke it firmly and vigorously to get a good strong spark so it will fire when the mixture is rich enough. If you miss that golden moment of opportunity and say "DIRT BIKE Magazine" one time too many, you can get the mixture too rich to burn and even get the firing end of the spark plug wet with fuel so it doesn't spark.

If you are in a hurry, pull out the wet plug and replace it with a dry one, properly gapped and all that. Kick it once or twice without priming any more and it should start.

If you are just loafing around and don't care if you ride this afternoon or not, open the throttle fully and kick it a few times without priming any more. This lets in a lot of air and not much gasoline, so it will dry out in there and you can finally get it started.

### BETTER SYSTEMS

Most Japanese carburetors and some models of the European brands provide starting mixture enrichment in a better way. It doesn't matter what magazine you read, and you can even do it while shouting "Cycle News Central."

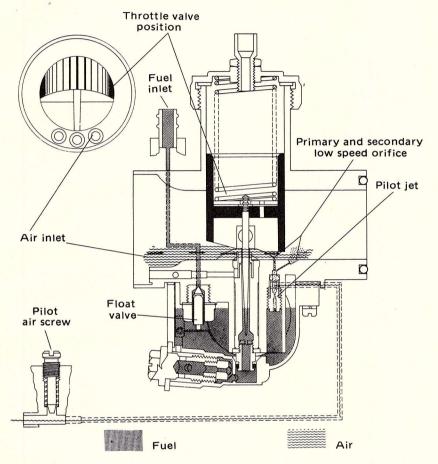
### THE HOLD-YOUR-HAND-OVER-IT PRINCIPLE

I mentioned earlier that experimental procedures are very much a part of the activities of this society — for the further enlightenment of knowledge.

Find an engine that is running and put your palm over the carb air inlet. You will feel the rush of air through the carb and into the engine and you will notice that it tries to pull your hand firmly against the air inlet opening. The closer you get your hand to the opening, the more the air is blocked by your hand and the more suction there is. If you allow your hand to close off the opening completely, you will experience the thrill of high suction momentarily. Then the engine will quit running. Leave your wrong name and flee.

carb. From the starting air inlet, air flows through a little passage in the body of the carburetor and passes by its own private fuel jet leading from the fuel bowl. There, the airflow joins with fuel flow through the jet and both air and fuel continue flowing through a little teeny passage toward the back side of the carb.

The starting carburetor dumps its fuel-air mixture into the main air



At idle and just above idle, fuel flow is regulated by the pilot air screw and the pilot jet. Some air ducks under the throttle slide but in this drawing it has not yet started fuel flow up through the needle jet. Lift the throttle slide a little higher and fuel will start to flow through the needle jet. Throttle slide cutaway influences mixture when it begins flowing through the needle jet.

What this proves is that any obstruction in the air passage of an engine that is rotating will cause a rather large suction or vacuum between the obstruction and the engine.

Clever carburetor designers make use of that suction to cause starting enrichment.

### STARTING CARBURETOR

One way is to use a separate little carburetor built right into the main carburetor. The separate one is called a starting carburetor. It has an air inlet on the side of the bellmouth at the front door of the passage at a point *behind* the throttle slide. If you look in there, you'll see a small hole that does that.

Somewhere in the starting carburetor passage will be a valve which is just a round plug or plunger that blocks off the passage. The principle of operation of this plug is not hard to understand: When it plugs up the passage, nothing can happen. When the plug is pulled up to open the passage, something can happen. I warned you that these carb designers are clever.

The thing that pulls the plug in the starting carb is either a control lever on the handlebar or a little lever on the carburetor which may be called the choke.

The thing that makes air flow into the starting carburetor and makes fuel jump out of the bowl to join the airflow is the high vacuum or suction because you are cranking the engine. The piston is moving up and down gasping for air, but it can't get very much, so vacuum is high.

The thing that makes high vacuum behind the throttle slide is the fact that you are cranking the engine with the throttle slide *closed*.

VERY BIG RULE: When you are cranking an engine with a starting carb, leave the throttle completely closed until the engine starts. If you can't resist opening the throttle with a spastic reaction every time your kicking foot moves down, try putting your right hand in your pocket.

If you insist on opening the throttle, the vacuum behind it disappears and the starting carb will not work. You can also do that until the race is over.

### **CHOKE MECHANISM**

A choke mechanism is a mechanical slide that lives up in the top of the carb and can be moved down into the main air passage ahead of the throttle slide. This is exactly like putting your hand over the opening except it is much more dignified.

Also, most chokes have a little trap door held closed by a spring. When you are cranking the engine with the choke closed, the door springs open just the right amount to allow the necessary amount of air to come in.

To start up, close the choke. Operate the kickstarter smartly and the engine should start. As it warms up, gradually lift up the choke.

There aren't any special fuel or air passages with a choke of this type. When the choke plate is lowered into the air path, every point behind it has high vacuum. Fuel will gush up out of the needle jet and enrich the mixture for starting. The position of the throttle slide doesn't make much difference because this scheme doesn't rely on a closed throttle slide to create high vacuum behind it.

This type of carburetor is ideal for the guy who can't resist opening the throttle wide while kickstarting.

> HOW YOU CAN TELL WHICH YOU HAVE

If you have a tickler button, you

can see it there on the outside of the fully closed, so some air ducks under out from run-poorly to run-poorly. carb.

If you have a Mikuni or Bing, it is likely to be a separate starting carburetor. In fact, some models of Bing have both a tickler and a starting carb. Which is a motorcycling equivalent to wearing both belt and suspenders.

If you have a Keihin or Amal, it is likely to have a movable choke plate.

The sure way to find out is look in the carb. If there is no tickler and no movable choke plate, it must have a special opening in the side of the bellmouth feeding a starting carburetor.

### SO IT'S STARTED

Now it has to idle. The idle system on all conventional carburetors is exactly like the starting carb discussed earlier. Except it doesn't have a little plug in it to turn it on and off. It works anytime the throttle slide is closed or nearly closed and there is sufficient vacuum behind the slide to pull idle mixture out through a small hole which is also just behind the slide — on the bottom of the air passage, usually.

Sometimes there are two holes to deliver idle mixture, one just behind the back edge of the throttle slide and one just under it. As the throttle slide is lifted up, the one under it also starts discharging mixture. The one under it is often called a bypass orifice. Sometimes the two are called primary and secondary discharge orifices or some such. It doesn't matter much what they are called.

The idle circuit is from an air hole in the bellmouth, past a screw that sticks into the air passage to adjust the amount of airflow, past a special jet that draws fuel from the float bowl, and then through the discharge hole or holes in the main bore of the carb.

The screw that sticks into the idle air passage is usually called the pilot air screw or the idle air screw. The jet that limits fuel flow into the idle circuit is usually called the pilot jet or idle jet. Sometimes the air screw and associated jet are called slowrunning screw and jet.

The idle mixture is controlled by three adjustments, one of which we haven't talked about yet. There is a throttle stop screw which goes into the side of the carb right beside the throttle slide. It limits how much the out. Count the number of half-turns

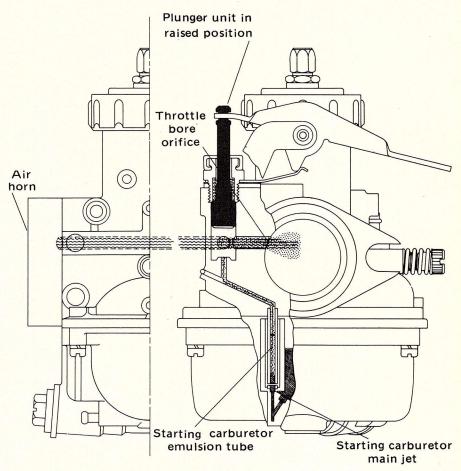
it and flows into the engine when you think the throttle is closed.

You adjust the throttle stop screw for the idle speed you want and the fastest. Usually it will be the same idle air screw for mixture strength at that idle speed. These two controls interact and a good adjustment screw to reduce idle speed to what procedure is as follows:

higher than you want it to be, using place where the engine idles fastest the throttle stop screw. Now turn the or smoothest.

Set the idle air screw halfway between these extremes, or at a nearby setting where the engine runs setting.

Now back out the throttle stop you want. Then recheck the idle air Turn the idle speed up a little screw adjustment and reset to the



Two cross-section views of the starting carburetor. At left, the air inlet in the carburetor air horn. At right, looking at the back side of the carb, air comes down the passage and is joined by fuel flowing through the starting carburetor jet from the float bowl. The plunger is raised, so fuel and air can flow into the orifice in the throttle bore and you can start up the engine.

idle air or pilot air screw inwards until the engine runs poorly. Usually turning this screw inwards makes the idle mixture richer, and when the engine begins to stumble it's because of a too-rich mixture.

Anyway, stop turning the screw inward when the engine acts like it is about to quit running. Start backing it out and count half-turns of the screw as you do it. The engine should speed up as you back the idle air screw out and then start slowing down as you continue backing it out. When it runs poorly, stop backing it slide can close. The slide is never you made while backing the screw

### HOW TO TELL IF THE PILOT JET IS RIGHT

The pilot or idle jet should be the right size to allow you to perform the idle adjustment described above. But sometimes you get one that is way too big or too small. Suppose you are turning the idle air screw inward and it should be making the mixture too rich. The engine speed just keeps on increasing until finally you have the screw turned all the way in and it's running best right there. By the time you get the screw turned all the way in, the mixture should have been much too rich. So

Continued on page 84

# NOVICE ADVICE



### Looking Ahead

Certain members of the DB staff have a tremendous advantage over a couple of the others when it comes to learning to ride. They are novices and only novices can learn a new technique, apply it to their riding, and be rewarded with an instant increase of speed. It's a good feeling; a feeling that someone like Gunnar can only get with a lot of work, a lot of practice and training. But for the mere mortals, the pleasure derived from a single feat of learning almost makes up for being blown off by everyone else. Almost.

The latest thing we learned is so simple that you're going to be tempted to ignore it. Don't; it works. It works for motocross, TT scrambles, enduroing or trail riding. And although it is simple, it's hard to do because habits are hard to break.

To go faster all you have to do is

look where you're going, not where you are. That's all there is to it. Don't look at your front wheel; the stuff there can't help you. Look ahead. Supposedly you've already slowed for anything in the way here. You should be concentrating on what's in front of you, the next straight or the next turn. Try it. If you think it doesn't work, check yourself, because you're probably looking at your front wheel again.

## Brakes so tough, we gave them a Lifetime Guarantee



# Beck/Arnley Introduces The Imperial Brake Shoe Line

Who knows more about motorcycle brake shoes than Beck/Arnley? After all, we've been in the motorcycle business for 61 years and have manufactured brakes for the past 30 years. And now, we're introducing the finest: The Imperial Brake Shoe Line. Precision-lined and ground, they are custom designed for most current motorcycles and the brake shoes for road machines have a LIFETIME GUARANTEE!

These same high quality, tough, long wearing Imperial Brake

Shoes are also available for most Japanese off road and competition motorcycles but do not carry the lifetime guarantee. In addition, Beck/Arnley has a full line of standard brake shoes for most Japanese, British and American motorcycles. All brakes shoes are sold in pairs... Imperial Brake Shoes are skin packed.

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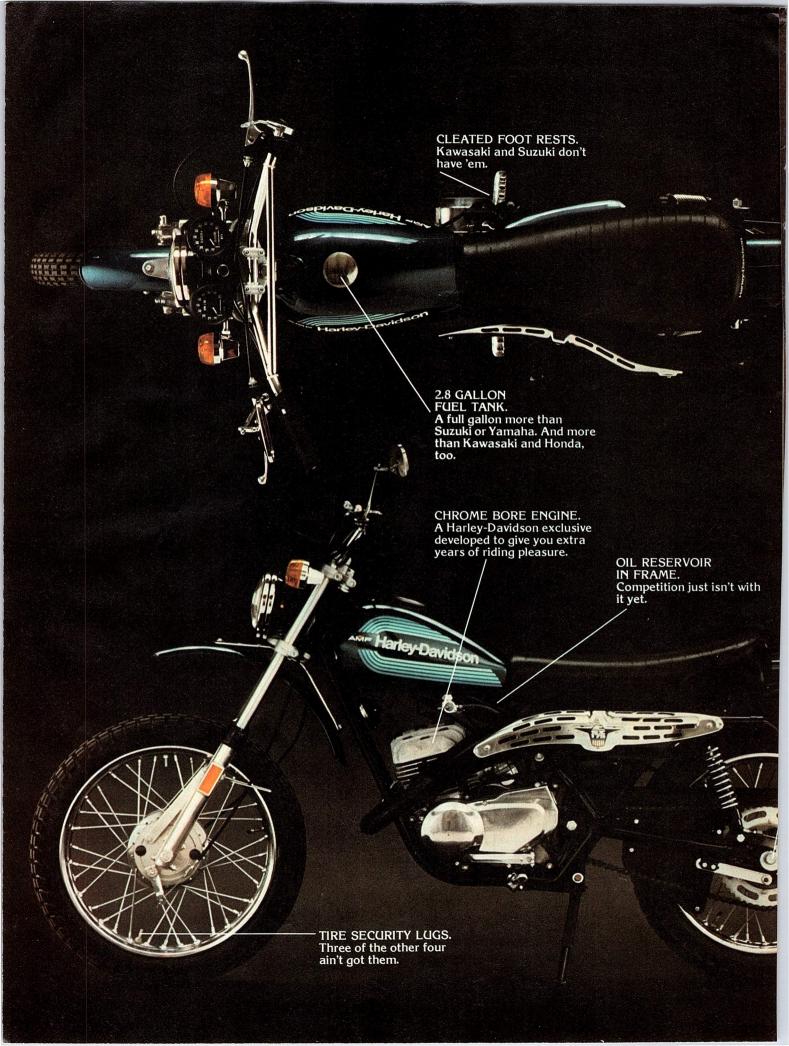
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### SDT REAR HUB. When did you last see one on a DT-175, TX-185, F-7 or (L-175?



### Compare the Harley-Davidson SX-175 with any other bike in its class.

There's no contest.

Let's take a look at five on/off road pleasure bikes that cost about the same. A Honda XL-175, Yamaha DT-175, Suzuki TX-185, Kawasaki F-7 and our own SX-175.

At the heart of the matter: the engine. Like everybody but Honda, ours is a 2-stroke single. That's for quick take-off, building up rpm's fast. Our SX-175 gets peak torque at just 6500 rpm'sa truly competitive figure.

And the SX-175 power plant is

the only one featuring a chrome bore for less wear, longer life.

That's just for starters.

Economy is next. About 69 mpg at a steady 50 mph. Pair that with the extra gallon in fuel capacity the SX-175 has over the Suzuki and Yamaha, and you've got a long ride coming. Great when you're on the trail out nowhere.

Now, while all 175's in this

reservoir in the frame. No extra tanks to get in the way or add weight.

Apart from the SX-175, only two of the others have capacitor discharge ignition. How reliable can the two remaining ones be?

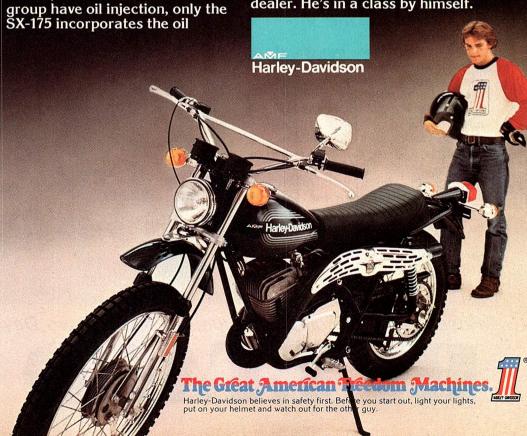
And only Kawasaki, along with the SX-175, comes with tire security lugs.

Here's a big bonus. And an exclusive. Only the Harley-Davidson has a quick change ISDT rear hub. A must for

enduros. And great anytime.
And when all is said and done,
remember the SX-175 is a Harley-Davidson. That alone says a lot.

You don't have to look too close to see who's leading the pack. And the same can be said about every Harley-Davidson from the 125cc through the legendary superbikes.

Check these and many more features at your AMF Harley-Davidson dealer. He's in a class by himself.



April 29. Up at six and split for the shop to pick up the 125 Monocross Don had blown up Sunday. Gas the truck, stop for coffee and show at the office to drop off the mail I'd answered last night. Check some proof sheets, mark some photos, get the Test Annual stuff rolling, then connect with Gunnar. Down to Yamaha International first, make it by 8:30 despite freeway traffic. Bultaco by 10:00. Take the Frontera out of the crate and disassemble. Gunnar, Bultaco's Mike Hannon and I strip it and put it back together.

"Do the bikes Bultaco customers buy get this kind of service, Mike?"

"Almost. Bultaco pays the dealers to perform the initial service and set-up. You're getting a little more because you're going to ride it at Trask Saturday. Don't forget to spray that headlight switch, and put Loctite on the rim screws. Check those hub bolts and please break the bike in before you start riding Saturday."

"Is this the first 250 Frontera available for testing, Mike?"

"Yep."

"Then if I don't give it back for a while we'll be the first in print?"

"Sure, or you can give it back the way DIRT BIKE usually does — so that I have to spend two weeks rebuilding it — that way you'll be sure to have the first test."

"Thanks, Mike."

But it gets done. Between the three of us — Gunnar saying things like, "This is a trick hub, that chromed aluminum is a good idea" and, "I see Bultaco made the same mistake Husqvarna did, extended the fork tubes with the same size springs so that they had to put in spacers."

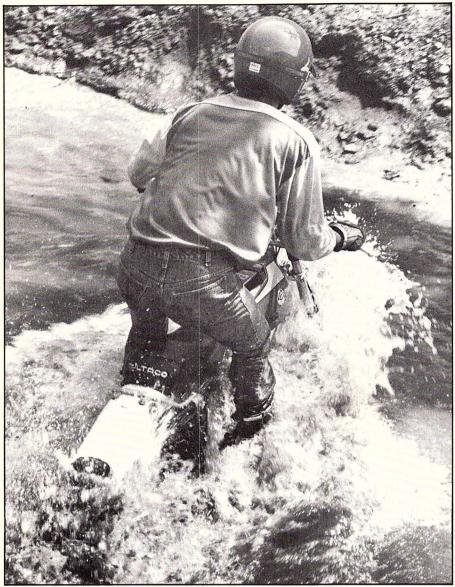
Zap, on down to Hockie's Motorcycles to pick up the Super Pioneer. Make it back to the office by five. Incredible.

Then on to Zeal's house to switch the Frontera's aluminum fenders for some livable Preston Pettys. Zeal and I run around his yard on the Ossa and Bul, showing off for one of his



Roses are red; violets are blue; If you like Two Days, This bike's for you.

# BULTACO 250



The pause that refreshes.



Notice Tim's "boy, this sure is fun" grin.

girlfriends. He won. Makes sense, it was his girlfriend. We determined that the Bul had it on the bottom, but it felt heavier. The Frontera turned out to be 246 with about a gallon. We couldn't decide if the short handlebars were a downer or not — but they felt strange, trials-like.

Zeal and I continued following Mike's advice detailing the bike. We put Preston Garders on the fork tubes, drilled about 16 holes too many and attached an I.T. rear fender, rubber-banded down some tools and generally messed around 'til about nine.

At which point the diary ends. So come along and follow the continuing adventures of one defenseless Bultaco Frontera. Our narrator was in the midst of prepping the bike for the Trask Two Day Qualifier in Oregon. You read all about that event last month. Let's pick up the continuity.

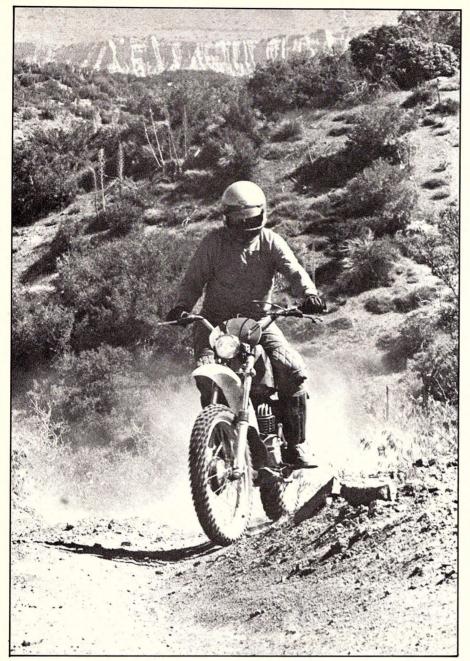
Trask. Problems. Shifting and slop. Slop was unavoidable, every-body had to ride it. Our rider retired the first day. Second gear wanted to pop out. At first the diagnosis was too much flex in the alloy lever. Some post-competition investigation revealed the detente for the shift lever was too strong. The shift would carry past second and then pop out. The cure? Weakening the spring and a Miura accessory steel lever. Other than that, the Frontera performed nobly midst the mess.

Phase Two of the test. The Bad Rock Qualifier. The bike received basic but not intensive attention awaiting the following weekend. Chet turned it over to Dick Miller. On to the creek. Road race to the bad stuff time. Twenty-eight creek crossings in the first loop, none much higher than the gas tank. Everything went great. Until the ignition failure from a wire rubbed bare. No electrics. Pack it up and go home.

Some mud had worked its way into the wiring connector boxes under the seat. Only other problem was the horn. Must have gotten

# FRONTERA

by the Staff of RHYME BIKE



One Day Qualifier Team Captain. Photo by Timoff.



dinged during one of the crashes at Trask. It stayed on continuously for Dick. So there he was honking along causing other riders to wonder about the madman behind them blowing his horn to pass on a one-foot-wide, off-camber cliff trail.

So much for Oregon. The DIRT BIKE One Day Qualifier Team limped home, soggy, mildewed and bedraggled. Fix the electrics and back to good ol' SoCal trailin'. Discover that Gorman's 7000-foot altitude doesn't agree with sea level jetting at all.

Now let's find out exactly what a Frontera is and what you can do to it to make it do what it does do even better.

### FRONTERAFICATION OF THE PURSANG

So you take your high zoot motocrosser and modify it a bit for the Six Days guys. And the Two Day guys. And the enduro guys who like



Stock fenders and narrow bars, before changes.

to haul it.

You keep the motocross chassis and suspension, naturally. Diddle around with the engine a bit. Like a different barrel. Port dimensions vary from the Pursang, but the cylinder uses the same basic porting layout. You keep the Pursang crank and right side flywheel weight, but you add a point ignition on the left side. That's heavier than the Motoplat setup on the Pursang, giving the Frontera more flywheel weight. And you use the Alpina transmission ratios which were also used in the Matador.

Then you stick a new pipe on it for quieter running. Baffled. No packing to get blown out just before



taking the sound test. Add an internal spark arrestor, and start the bureaucratic ball rolling to get it approved by the U.S. Forestry Service.

On the intake side you hang a new "square" Amal mixer, referred to as the Spanish Mikuni. It has a choke lever instead of a tickler and is designed for large float bowl volume. One advantage of the square loosen some bolts and it pivots to change the main jet. Another is the pilot circuit, part of the reason the bike runs so well down at the bottom.

Don't forget the large-capacity fuel tank, 3.0 gallons, fiberglass, naturally, and build a tool kit right into the top of it. Stylish looking, the tool compartment looks small but holds more than you think. Add a plastic chain guard and a rubber chain guide.

Bash plate. Fiberglass. Protect

that low pipe.

Don't forget all that timekeeping paraphernalia. Speedo for super-fine tuning if you don't agree with the Clerk of the Course's speedo. Resettable in half tenths. Could that be twentieths? Put a rubber number plate up front, attached to the crossbar. Little bonus. Let 'em stick a second plug in the head for quick changeover.

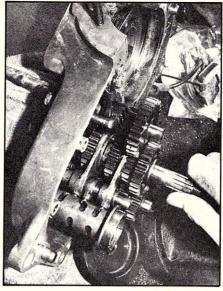
What else? How about a centerstand for working on the bike this side of the yellow flag waiting for your minute to come up. Remember to warn bike owners that the stand is built to support the bike only, not some character in leathers too. If you bend the mounting bolt from sitting on the bike you're asking for a stand that gets into the chain.

Add pull bars so the wheels slip off in no time at all for tire changes.

Brush cables for the foot pedals, levers, whatever you call them.

Fenders? Whatever Bultaco has lying around. Fiberglass. Stainless steel. Oh, and have Miura make up some plastic ones, and stick a taillight in the rear fender while they're at it. Will Barcelona become known as the Newberg of Europe? Oh; yeah, those handles built into the first 360 Fronteras, at the rear of the frame — don't really need them. Good, since they left them off from now on. The bike is easy enough to lift if the rear end gets bogged down.

RIDIN'



Obviously a Frontera transmission.





The accessory tailfender survived numerous crashes.

You can be haulin' and do things like ignore logs and other junk in the road. Hit a stump and let the bike work. On the fireroads the front end was skittery. The bike's tallness contributes to the unease and head shaking. Can't figure out why it shakes its head. The Pursang doesn't. Could it possibly be the three-

gear thing, I had no problems. Other than I forgot to check the air pressure and it was 45 pounds and I was crashing every 20 yards. Steering? I don't know, I couldn't see for the mud, so how could I steer? The power was so good that I could just shift from first to third and not have to hassle with the bad

Here's what our other One Daver said. I didn't like the narrow bars so I put Husky (bend) bars on for Bad Rock and I still got through the trees OK. It was easy to maneuver standing up, flick it around. Steering was fairly quick. When the power was off the weight and tallness would work around the front end and push the bike to either side. It didn't skip along the surface like some of the lighter bikes, but at times the weight was an asset. It skated on the fireroads. Good power to the ground, constant rather than squirrelly. It's got good low end: it's not a revver. Gear ratios were excellent. First was low enough to get up anything and it felt like I topped out in the 80s.

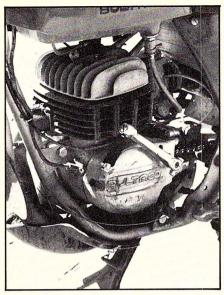
The brakes were alright. They went away in the river crossings, the rear entirely, the front about 50 percent. Didn't have a problem in all those water crossings. Surprised me. The water was up to the tank at times. We siliconed the case entry and terminal and used LPS on the

points.

Comfortable to ride, it's more of a stand-up bike. I was never really confident with the suspension, but it was good. It was fine for slow or medium speeds; when I hit things at speed it sometimes pitched. Remember that downhill near the end of the first loop with the sweeping turn near the bottom? I was sort of out of control on that.

It's a neat bike, I thoroughly enjoyed riding it. I was on time until the ignition coil wire went and there were only about four or five 250s on time. I preferred it to the Husky I rode at Trask. The power was excellent, it was fast enough and strong enough to get me there and it really hooked on the pavement.

Another rider. First of all, it's a Bultaco so it's gotta be great. Faster than a Sherpa. It felt really tall, but it worked neat. I could ride it better than the Penton you had. The power was smoother. Neat motor. The brakes had good feel and the Here's one One Dayer's comments. gallon tank? Other than the second suspension worked. It felt wide in



Showroom new.

250. I thought it was a weak 360. It has more bottom end than any other 250 enduro I've ridden. I could leave it in third and it would sound like it was giving up on a hill and then it would start pulling again. If you get tired and sloppy you can just hang on and let the bike grunt its way through.

It didn't shake its head or swap ends for me out in the whoops, but it is imperative to get your weight back over the rear fender. This makes the

shocks work and it goes straight as an arrow. If you stand up and trials it around with the weight further forward it brings the rake in and the front does shake some. It seems to ride softer than a Pursang. How does it compare to the other

Mike Hannon coolin' off

the middle; it just feels like a big motorcycle.

How about some words from another impartial observer, even if he does own two number one plated Pursangs.

It corners better than the '74 Pursang. I was really enjoying it on the track. The front end sticks better; it really hangs on.

250s I've ridden? That Penton I rode in the Two Days felt more like a motocrosser, you had to think about the throttle more. The Frontera has more enduro-like power than either the Husky or the Penton. It seems slightly faster than the Husky, not near as fast as the Penton.

We got Gunnar away from the track long enough to go Fronteraing You didn't tell me it was only a in the boonies. Here are some of his

comments.

Good power. I missed some shifts to second. The shift lever is too short for me. I'd soften up the forks. The brakes were good. If you keep the front end light it tracks very well, no problems.

The Frontera is at least as good as the Husky or Penton. The power is as good or better. The suspension works as good as the Penton. I'd pick the Husky over the other two. It's lighter. It needs to be set up more compared to the other two, but I know how to do that. I think I'd pick the Bul over the Penton, mainly because it's lighter.

And now a few words from DIRT BIKE's performing Zeal, author of those legendary words, "That Husky, after I rode it a while I realized I wanted three":

"My whole opinion changed after listening to Jim tell how to ride it. I didn't like it the first time I rode it. I followed Jim's advice and rode it with my weight way back. It steers super-good, went exactly where I pointed it. Just leave it on and go. It doesn't have as much snap as the Husky on acceleration though."

#### FRONTERA TIPS

Here's an assortment of set-up tips we picked up from our own experiences, from owners, and from Bultaco's Mike Hannon, who rode a 360 Frontera for the Two Day Qualifiers.

Read the owner's manual carefully. There's a lot of info in there.

Loctite the rim screws along with the normal things.

Add some additional sheetmetal plating to protect the downpipe behind the right peg where the bash plate ends.

Rig up a rubber band to hold the centerstand firmly in position, otherwise it bangs around over the bumps.

Carry a spare rubber tank tool kit fastener in case the working one breaks. (Ours didn't break.)

Starting tip. Cold engine. Choke on, closed throttle, choke off shortly after it fires.

Suggested plug: The manual says Bosch W290. A lot of the Two Dayers went with the WP265 platinum Bosch. Alternates are the NGK B9E and the Champion N57R.

Double up on the three springs holding on the air filter. Six are better than three. For Two Days



Seldom seen, Bernie Schreiber without traction.

some of the riders go to rubber straps instead of springs because they're quicker and easier for changing filters on the second morning.

Hook up a Sherpa/Alpina chain tensioner. Fairly easy operation. Drill and tap a hole in the motor mount and put a bend in the spring.

Braze some 1/8-inch flat stock to the upper rear pipe mount to leverage. strengthen it.

up with very close tolerances. Leave it rich for 300 or 400 miles. The engine will require more fuel after it is broken in. Some owners were leaning out and running hard on a fresh engine, a combination that desert work. meant detonation or seizure.

Standard jetting is 360 main, 108 needle, 25 pilot, 2½ slide. This worked fine with our bike until we took it up to 7000 feet.

Fork oil. Start off with 220cc of Bel-Ray ten-weight. Change or mix weights to suit your taste.

Shock oil. Bel-Ray LT. Start off with 100. Mike told us the 300 worked best for him, slowed down the damping action more to his personal taste.

Springs. Miura Products has replacement springs for the forks and shocks.

Use duct tape on inside of rims for serious mud running.

Don't mess around with the porting. Keep the engine stock for the best combination of reliability

and performance.

Mike told us all he did was silicone the wiring and add the Miura air box accessory shroud for Fronteras (and Pursangs) and he had a submarine.

Cut the leading edge of the brake shoes at angles to clean the water out faster and provide more brake

Replace the front brake backing Break the engine in easily, it is set plate lever with the rear backing plate lever. It creates more leverage on the shoes, cleans the water out

> Tires for hard running. Metzeler Six Days or Cheng Shin six-plys for

**BITS & PIECES** serrated, Beefy pegs, spring-



#### **BULTACO 250 FRONTERA**

Price (approx. retail, West Coast) .\$1525 Engine:

Sgl. cylinder, two-stroke, piston port Displacement ......244cc Compression Ratio . . . . . . . . . . . . . . . . 12.0:1 Carburetion . . . . . . . 36mm square Amal Standard Jetting:

360 main, 108 needle, 25 pilot, 21/2 slide

Horsepower ...... No figure claimed Clutch ......Wet, multi-plate 

Transmission Ratios:

1) 3.48 2) 2.26

3) 1.60

4) 1.22

5) 1.00

Final Drive:

3.50:1 ratio, 520 Joresca chain;

12-tooth countershaft; 42-tooth rear sprocket

Air Filtration ..... Oiled Twin Air foam Electrics . . . . . . . . Flywheel magneto Starting ......Neutral only Lubrication . . . . . Pre-mix (50:1 Bel-Ray) Recommended Fuel . . . . . . . . Premium Recommended Oil .....None Fuel Tank Capacity . 11.4 liters (3 gallons) Frame . . . . . . . . . . . . . . . Chrome moly Suspension . Betor forks, Telesco shocks Wheels & Spokes:

Akront shoulderless, Stainless steel spokes

Tires ....2.75x21; 4.50x18 Pirelli knobby Dimensions:

Wheelbase . . . . . . . 140 cm (55.1 inches) Swingarm Length 46.4 cm (18.25 inches) Ground Clearance . . . 26 cm (10.2 inches) Bars, height . . . . . . 109.2 cm (43 inches) Bars, width ......74 cm (29 inches) Pegs, height ........33 cm (13 inches) Pegs, width .....46.4 cm (18.25 inches) Seat Height . . . . . . . . 90 cm (35.4 inches) Fork Angle ........................29 degrees Weight:

111.6 kg (246 pounds) w/one gallon of gas;

44.4 percent front, 55.6 percent rear Brakes:

Cable operated front, 140mm x 30mm Rod operated rear, 140mm x 30mm Instruments:

Speedo/odometer. resettable in half tenths

Lights .....Yes Silencer.....Yes Spark Arrestor . . . Yes, approval pending Warranty . . . . . 60 days (parts and labor) Parts Prices: Rings (each) .....\$3.98 

loaded, fold up to 45 degrees.

Tire sealer comes with bike, mounted on crossbar.

Rims are Akront shoulderless.

Kill button on the left side.

Three mean-business springs secure head of exhaust pipe. Rubber lever covers.

Continued on page 82





# CARLSBAD INTERNATIONAL



(Hayt photo)



Half-blind Netherlands neurologist.

# by Len Weed

Gerrit drills past Staten to extract a third, Novocains the field to pull a first, extracts the overall win to cap the day

# USUAL INTRODUCTORY BLURB

Sunday, June 22, Carlsbad, California, and you are there for the sixth event of the 12-event International 500 series. Point totals after five events placed the top six: Mikkola, DeCoster, Jonsson, Wolsink, van Velthoven and Lackey. Actually DeCoster, with six wins (to Mikkola's two) and two seconds, was in a stronger position. The best 13 moto scores determine the











Support crash and burn.

champion. Mikkola, with two wins, five seconds and three thirds, had yet to finish out of the top three in any moto.

Six of the top ten in the points standings showed up. Arne Kring and Frans Sigmans stayed home with injuries. Curiously, Ake Jonsson and Jaak van Velthoven were not brought over by Yamaha, even after they offered to pay their own way. They were told there would be no bikes for them in the U.S. or for the Canadian GP the following week. And Jim Weinert was also told to forget about going to Canada. Inscrutable, to say the least. Yamaha's decision let Wolsink pass Ionsson and take over third place in the standings, and also permitted Lackey to move up and tie van Velthoven for fifth. The Lone Thumper, John Banks, stayed home with a dislocated shoulder.

## FIRST MOTO

Americans like to get holeshots in their home park, particularly Southern Californians familiar with the Carlsbad terrain. In the past two events Lackey, Gary Semics and Gary Jones have done the honors. This time 'round Rex Staten on a shop-sponsored CZ did the trick. And he appeared intent on holding it. Except for some Belgian in second the first six bikes soon turned into an American procession, including Gavlon Mosier and Gary Semics touring behind DeCoster. While Rocket Rex was berserking away Roger seemed to be biding his time, probably because he read somewhere that Americans can't sustain for 45 minutes, unless, of course, they are American Europeans like Lackey or Pomeroy, not to be confused with European Americans like Karsmakers. Rex kept it up, with Roger staying in striking distance. George was salivating, watching a nearstock CZ holding the lead for some ten laps. While most of the crowd was cheering Rex on, another portion seemed to come to life as Roger started to close in. Make no mistake about it, Roger is very popular with Americans. He was cheered when he finally took the lead. In the meantime nobody was paying much attention to what was happening behind the top two spots. What was happening was: last year's winner, Gerrit Wolsink, the wellknown Dutch orthodontist, was motoring around in third and



Support class, Croft ahead of Smith. (Hayt photo)



Aberg never takes his feet off the pegs.



Lackey had moved up eight slots to fourth.

One of Staten's motor mounts let loose and it became a three-way battle for second while Roger ran away from 'em, headed for a 22-second victory. The vibration and possibly the 20-minute moto training evidently were taking their toll on Staten, but he still held off the pair behind him. Lackey and Staten dueled on the downhill. Wolsink and Staten touched bars. On the next to last lap Lackey had tried to outpull Wolsink and pass on the outside line, but he didn't quite make it. On the final go-round Wolsink moved to protect against Brad outpowering him to the outside, only Brad shut off and dove inside to grab second. Wolsink and Staten followed him across the line. The 11th moto of the season was history and DeCoster had his seventh victory.

Where was Heikki? He just got off to a bad start — a little crash didn't help — and had to work up, finishing eighth, his first finish of the year out of the top three.

# SPECIAL TEAR-OUT HONDA SUPPORT SUPPLEMENT

Actually, what it was, was a 125 race with everybody on 250s. But the Honda 125 team of Marty Smith and Tommy Croft just gassed and hid from everybody else. Smith holeshotted the first moto; he had to move up to take the lead away from Croft in the second. Wayne Boyer, a



Rex kept lead for ten laps.



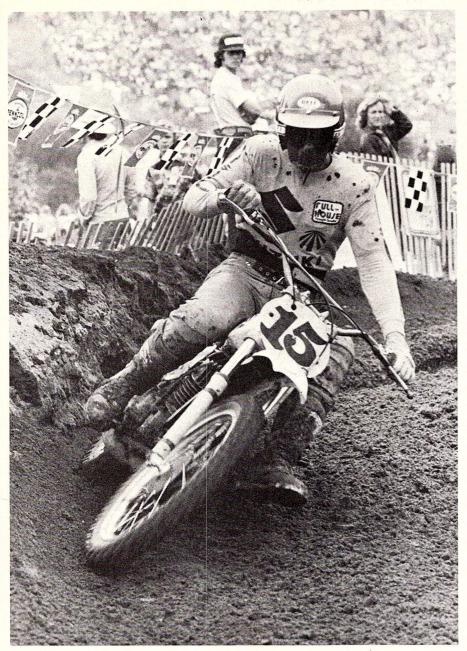
Finlanders don't wear kidney belts. They're tough.



Kent Howerton.

former Honda teamster, took third overall with a sixth and fourth on a CZ. Tim Hart, who won the 125 National opener at Hangtown, took fourth overall on a YZ. Ron Pomeroy was fifth. Bruce McDougal, last seen in a color ad explaining why he quit the 125 Honda team, did grab a third in the first moto. Of course, the new 250 National champ, Tony DiStefano, was riding the Open along with teammate Billy Grossi, dethroned three-time champ Gary Iones was still in a cast, and '75 runner-up Kent Howerton was Opening it too, but Smith sure was motoring.

SECOND MOTO
The drop of the gate found Roger



Tony D. Part of Suzuki's master plan to rule the world.

sitting in neutral wondering why his ineligible for GP points, and his motorcycle wouldn't move for a millisecond or two. Gary Semics, who did it last year, did it again and coming confrontation. Only, it holeshotted the field for another partisan crowd-pleaser. Mikkola tangled with another bike in an early corner, then got run over by two more and came around dead last. He started picking off backpackers, moving up at least ten places within three laps.

shortlived as his suspension started failing. Pierre Karsmakers took the lead, followed by the Suzukis of DiStefano, DeCoster and Wolsink. Roger passed Tony and was working on Pierre. Last year Roger had some strong words about Karsmakers, catching DiStefano at the finish.

failure to let him by to chase didn't happen. Roger fell on a descending left-hander and yielded second. Wolsink eventually passed the American Dutchman on the downhill. DeCoster slowly dropped back, the damping in his shocks non-existent.

Lackey pulled some nipples out of engine. Meanwhile Semics' lead was his wheel early and retired to contemplate his first moto finish, the best yet by an American in GP competition, and his impending marriage two days later.

Mikkola, who had started 400th, moved up to fourth and missed



# **TECHNICAL TIDBITS**

Our roving reporter and Swedish Meatball King in absentia reported an abundance of non-trick stuff. Honda flew in a new engine for Pierre that sounded "different." A high revver, it obviously had some power. No new trick shocks — he was running S&Ws.

Heikki's bike sounds different than the other Huskys. More of a low-end growl. By fiddling around with the transfers he's traded some top end for some more bottom end. Hear that, all you piston-a-week 16,500 rpm'ers.

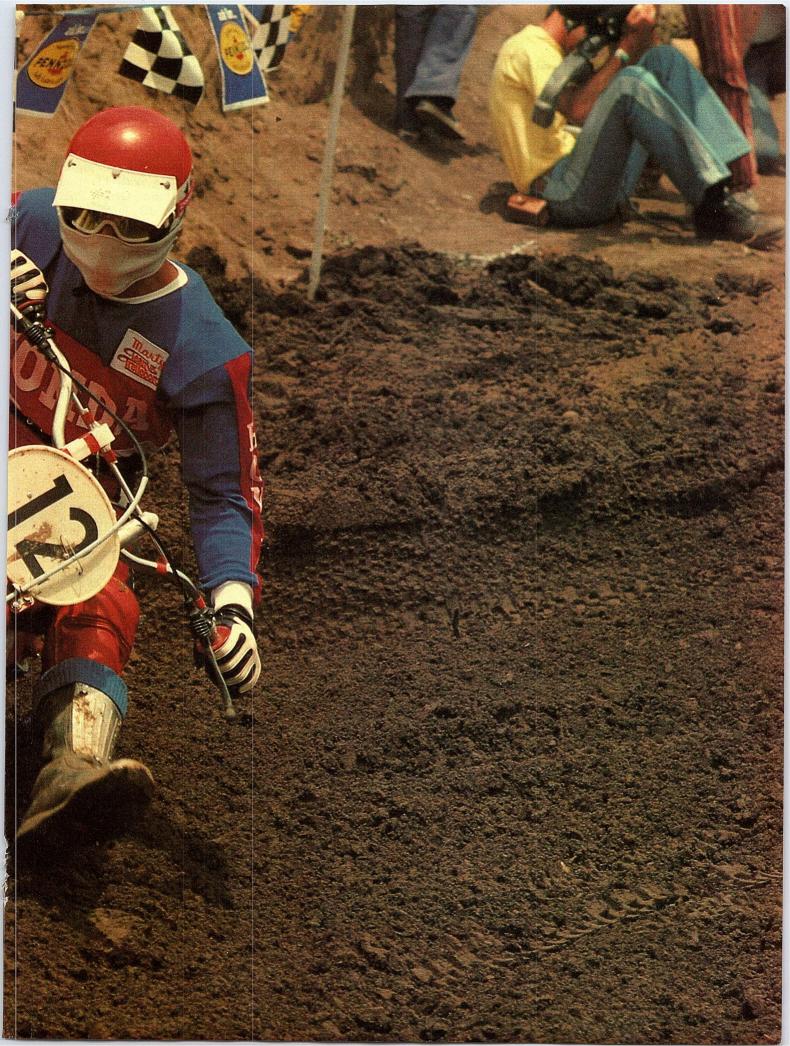
Kawasaki evidently hasn't figured out what they are running. Hammargren, who won a moto in Italy, had one bike, Semics had a different one.

Jim Connolly spent a lot of time Mikkola. The crowd anticipated the checking out Aberg's Pursang, naturally. Pretty stock. Chain adjuster, handlebars, upside-down Bilsteins and last year's 352 engine were the only variations noted.

> Roger's bike is set up so it will start breaking up at around 6500 rpm. Purpose: so he'll short shift, use the mid-range torque and save the

> Minimum weight for the 500 class is 204.2 pounds. Roger and Gerrit's Suzukis weighed in around 212, Billy Grossi's tipped 224 and Tony DiStefano's was another six pounds heavier. Heaviest bike was Peter Lamppu's CZ at 243. Staten's was six pounds lighter.





#### DYNAMITE DRIVEL

Gerrit Wolsink, the noted Dutch pediatrician, told Chet that dirt behind one of his contact lenses left him blind in one eye for the French GP and this one.

Continuing along with our eyes, ears and throat investigation, Pierre was recuperating from an ear infection that bothered him when wearing his helmet.

Roger received his Toyota pickup before the racing for being selected as the world's best motocrosser by



"I don't know, Brad. Maybe you better put your leathers on."



Light Brown weighed in lighter than Staten's CZ.

the readers of Berm and Desert Action Magazine.

Roger waved to Chet on the start line. Maybe that's why he forgot to put it in gear.

First Annual DIRT BIKE Performing Zeal Anderson Meritorious Individualism Award, replica high zoot press hat and Jeepers sneaks, was awarded to Support class rider Jeff Vidic. Jeff rides with a full coverage helmet, uses a flip-up face shield and wears a gray sweatshirt for a jersey. Keep on gassin', Jeff.

ABC-TV left Keith Jackson home this time. Watch and see if Frank Gifford is any better acquainted with the sport of motocross.

First European American was Karsmakers: first American American: Weinert; first American European: Lackey; first European European: Wolsink.

Winner Wolsink qualified 12th fastest. Top two were DeCoster and Lackey. In unofficial timing of Saturday's practice Staten may have had the fastest time racing with



"Pssst. How did the X rays look, Gerrit?" "Just one cavity, Heikki."

DeCoster until Roger decided to save it for Sunday.

Two shop-supported riders finished in the top ten 500s midst all the factory teamsters. Staten took seventh overall riding for Suzuki-Triumph of Pomona and Gaylon Mosier, who took a fifth in the first moto, was tenth overall on a Wheelsmith Maico.

Suzuki probably wouldn't have cared, even if their bridge had been burned down. Roger moved into a tie for the lead in the 500 class. They also have the leader in the 250 class, Willi Bauer, the lead in the 125 class, Gaston Rahier (with nine wins in 12 motos) and the 250 National champion, Tony DiStefano. But what have they done lately?

# EXCUSES. ALIBIS AND EXPLANATIONS

After the first moto Roger told his crew that the rear suspension wasn't right. They couldn't find anything wrong with it. Upon crossing the finish line, he pushed down on the seat whereupon the rear end rebounded with a resounding undampened whap. Wasn't too happy about it.

Several of the Europeans like Mikkola, Hammargren and Aberg apparently did not care for the track. Too fast, too smooth, too hard Hammargren .....

a surface.

Marty Tripes broke a collarbone during a five mph washout in practice on Saturday.

Weinert fell on his bad shoulder during Saturday's practice. The fall was hard enough to break the plastic

in his shoulderpads.

The AMA still hadn't heard from the FIM concerning the barring of Brad Lackey (along with 11 other riders) from the Italian Grand Prix. The riders were disqualified for allegedly failing to ride the prescribed number of practice laps. Protests that scorers had missed the lap counts on the mud-covered bikes and riders were not allowed. Lackey is appealing.

The FIM updated their rule book for the 1975 campaign. Carlsbad was the halfway point of the season and the AMA still hadn't received

their copy.

# **RESULTS**

#### 500 CLASS

1.	Gerrit Wolsink, Netherlands . Suz (3-1)
2.	Roger DeCoster, Belgium Suz (1-9)
3.	Pierre Karsmakers, U.S.A Hon (10-2)
4.	Heikki Mikkola, Finland Hus (8-4)
5.	Jim Weinert, U.S.AYam (7-6)
6.	Kent Howerton, U.S.A Hus (9-5)
7.	Rex Staten, U.S.A CZ (4-10)
8.	Tony DiStefano, U.S.A Suz (13-3)
9.	Gaylon Mosier, U.S.AMai (5-11)
10.	Billy Grossi, U.S.A Suz (12-7)

# 250 SUPPORT CLASS

	Marty Smith (1-1) Hon
2.	Tommy Croft (2-2) Hon
3.	Wayne Boyer (6-4)CZ
4.	Tim Hart (9-3) Yam
5.	Ron Pomeroy (7-6) Bul
6.	
	Jim Turner (11-10) Yam
8.	Bruce McDougal (3-19) Yam

# **POINTS STANDINGS**

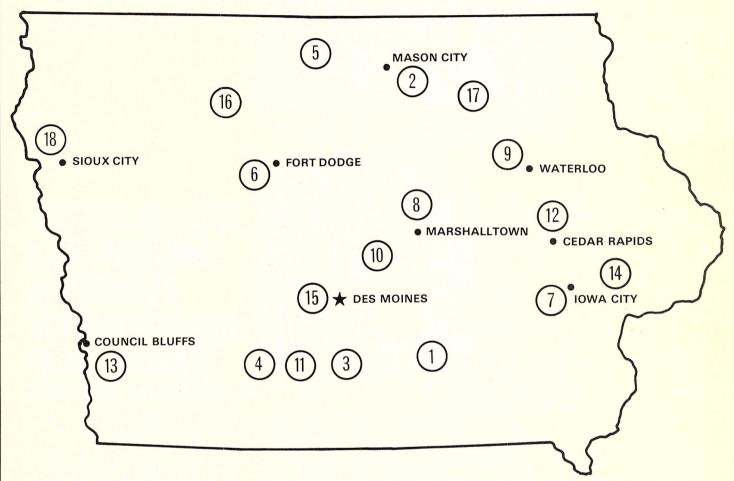
1.	DeCoster (Suz)
2.	Mikkola (Hus)
3.	Wolsink (Suz)
4.	Jonsson (Yam)
5.	Lackey (Hus)
6.	van Velthoven (Yam)58
7.	Aberg (Bul)
8.	Hammargren (Kaw)
9.	Kring (Hus)
0.	Sigmans (Mai)

# **MOTO WINS**

Decoster						•					•	•		•					/
Mikkola.									•										2
Wolsink.																			1
Jonsson								•		•			٠						1
Hammarc	٦r	6	r	1															1

# WHERE TO GO MXing IN IOWA

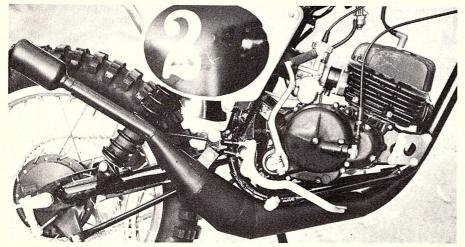
Actually we assumed there was a dearth of motocrossing in Iowa. That's because we only had four tracks in our files. Then, out of the clear, blue Iowa sky, came a letter from T. Seller of Marshalltown. Aha! He listed 17 places to go racing in Iowa. So thank him, if you find the need to thank someone.



- No name listed (Albia) COMFORT: 7; MANAGEMENT: 3; LAYOUT: 10; SAFETY: 3
- (Charles City) COMFORT: 9; MANAGEMENT: 3; LAYOUT: 12; SAFETY: 20
- (Chariton)
   Seller knows it exists but he's never been there and neither have we.
- 4. (Creston) Ditto.
- (Forest City)
   COMFORT: 10; MANAGEMENT: 5; LAYOUT: 30; SAFETY: 28
- (Fort Dodge) COMFORT: 7; MANAGEMENT: 5; LAYOUT: 1; SAFETY: 5
- Iowa City Competition Riders (Iowa City) COMFORT: 14; MANAGEMENT: 5; LAYOUT: 26; SAFETY: 30
- (Marshalltown) COMFORT: 13; MANAGEMENT: 5; LAYOUT: 33; SAFETY: 30
- (New Hartford) COMFORT: 13; MANAGEMENT: 5; LAYOUT: 5; SAFETY: 30

- 10. (Newton)
  No information.
- 11. (Osceola)
  COMFORT: 12; MANAGEMENT: 5; LAYOUT: 35; SAFETY: 27
- Wendy Oaks (Springville) COMFORT: 10; MANAGEMENT: 2; LAYOUT: 27; SAFETY: 24
- 13. (Tabor) No information.
- (Tipton)
   COMFORT: 11; MANAGEMENT: 5; LAYOUT: 36; SAFETY: 25
- Van Meter (Van Meter)
   COMFORT: 6; MANAGEMENT: 3; LAYOUT: 10; SAFETY: 21
- 16. (West Bend) No data.
- (West Union)
   COMFORT: 10; MANAGEMENT: 2; LAYOUT: 21; SAFETY: 18
- Sioux City (Sioux City)
   COMFORT: 8; MANAGEMENT: 5; LAYOUT: 13; SAFETY: 28

# PRODUCT EVALUATION



Our kitted bike. Obvious differences: longer stinger on the pipe, slightly different header pipe, intake flange between the carb and cylinder.

This year's DB Calendar said 1975 was the forward mounted year; 1976 is to be the gas-filled year. Suspension is the word these days and Suzuki's RM125 is an excellent example of the way things are going. It has laydown, gas-filled shocks and vastly improved forks. We've heard next to no complaints on the bike's handling and suspension.

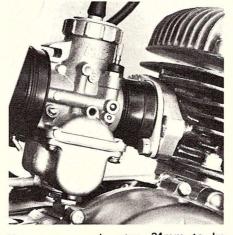
But when the subject of speed comes up, it is a different story. The Suzuki's no slug, but it isn't going to blow the doors off anything even slightly modified, either.

Suzuki has a remedy. It's a factory speed kit that includes a piston, carb, intake flange, expansion chamber, cylinder and air box, along with all the cables, hoses, gaskets and clamps you need. It bolts on and after a bit of minor tuning (read jetting and timing), it's ready

Now you ask how good it is.

Our kitted bike was faster, pipier, ran cleaner if you were on the pipe and, of course, was more expensive. We'll take these points one at a time. On paper, there is really no reason for the kit bike to be much faster than the stocker. The dyno showed the stock bike ahead of the kit bike on horsepower up until almost 10,000 rpm. At that point the kit bike surged ahead. But even if you're one of those berserkos who like to ride at 10,000, we doubt if you are keeping it there out of every corner. And out of the corners is where it

So take the dyno figures with a bit



Humongous carburetor, 34mm to be exact.

definitely faster: a bike length or two on a straight drag, and on an uphill pull, a gear higher can be used.

Of course, there is a price to pay. The kitted bike is pipier, more of a petty annoyance. If you consider that the stock bike is pipey and has to be ridden carefully with liberal use of the gearbox, then the fact that the kitted bike is a little pipier and has to be ridden more carefully with a little more use of the gearbox shouldn't bother you. It isn't difficult to get the hang of it, though we suggest you don't break it in during your first race.

Running clean is a rather controversial point in itself. The kitted bike seemed to rev faster. If the people here who think so are right, then this explains why the kitted bike with less horsepower at low rpm still is faster than the stock bike. At any rate, grab the throttle at anything above 6000 and the kitted bike reaches that peak a lot quicker than the stocker.

More expensive. This should go without saying. As of right now,

"Flow over that course like syrup even faster flows over pancakes"

# HOP-U

# by the Staff of HOT BIKE

a kit already installed. That means you'll have to fork out \$195 for accessories. Not too bad, but that's a lot of nights out on the town. Also, we have a hunch about why Suzuki is not selling an RM with the kit already on: reliability. Any bike that reaches peak horsepower at close to 11,000 rpm has to be taking a strain. Rods and main bearings and seals have a hard time lasting when the engine is working with that stress. How much reliability the hop-up kits steals remains to be seen. Our kitted bike actually was more reliable than our stock bike. Shortly after we finished testing our stock bike, fourth seized on it and we could hear teeth rattling around in the gearbox. No such problem with the kit bike, but this probably only means we had a defective stock bike.

For all you technically minded people, Suzuki has taken a rather conventional approach to making their RM go faster, sticking to the basics of making a two-stroke do more: bigger carburetor to get more of discretion. The kitted bike is Suzuki does not offer an RM125 with gas in, bigger ports to keep the



increased gas moving, and bigger pipe to get it all out faster. A 34mm replaces the stock 28mm, quite a jump for a 125. To handle the increased demand for air, Suzuki furnishes a new air cleaner setup with a larger intake diameter. All hoses are supplied.

As more gas and air come in, it is necessary to have a larger intake port. And that's the main difference in the replacement cylinder: a much larger intake port and a slightly larger exhaust port. The rest of the ports (amount and size) are basically

the same.

To handle the increased exhaust, there is a larger pipe supplied. Header, pipe, cones and stinger are all larger and put together for more horsepower.

Because there is more gas and stuff in there, it takes longer for the mixture to burn. Which means you have to retard the timing for longer burning. Only slightly, but it is necessary. Directions for the exact how-to are supplied with the kit.

And that is Suzuki's conventional

approach. They put in more gas and let the bike rev higher for more peak horsepower. They put it together as a unit so you keep high performance throughout the rpm range. Simple, but it works.

In the end it came down to a vote to settle the controversy. Who among us would fork out \$195 for a factory kit which does indeed make the bike go faster? No one. But everyone was coughing and aheming as we voted. No, we wouldn't pay the extra money for the kit, but the kit was still desirable. And where

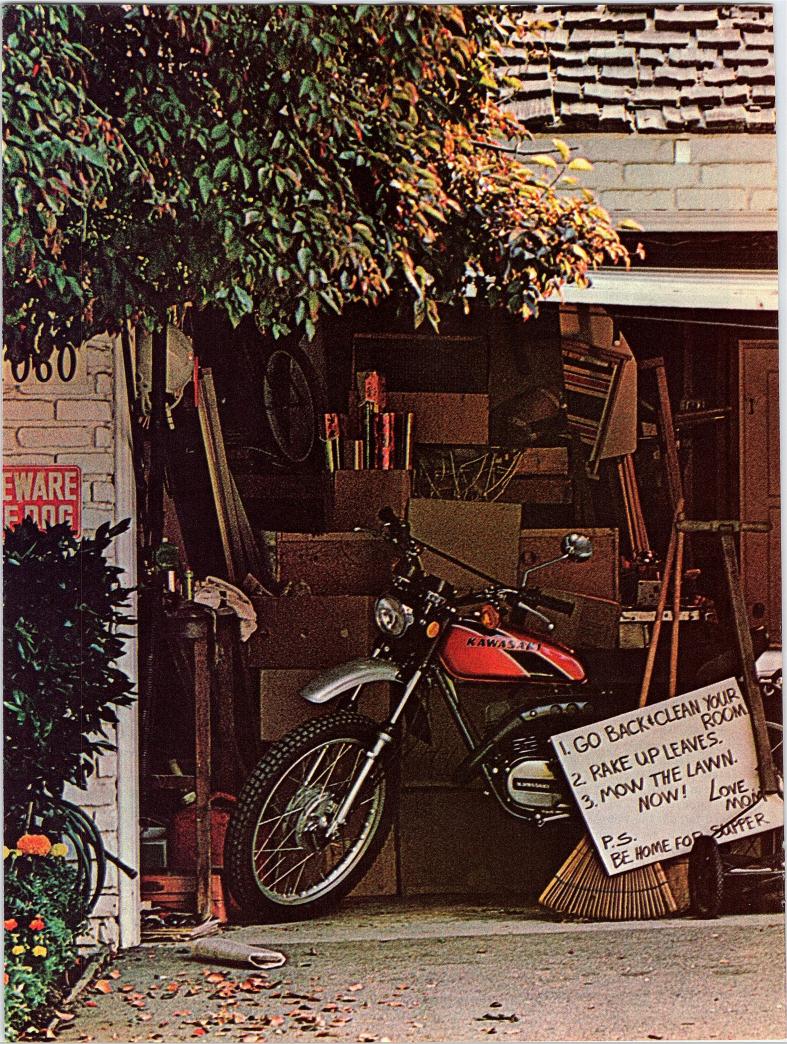
SUZUKI RM125 HOP UP SUZUKI RM125 STOCK

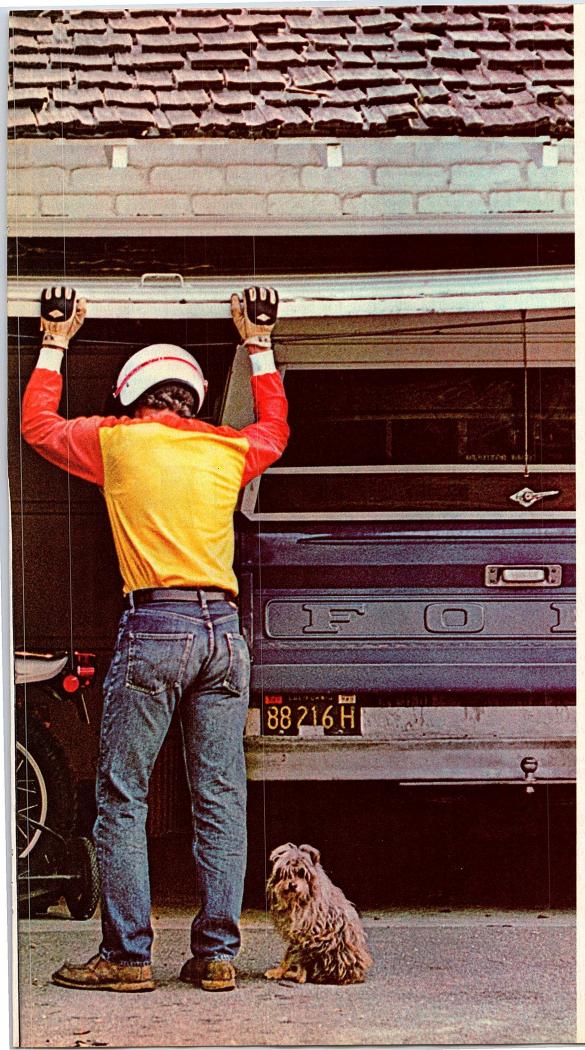
there is a will, there is a way. So we phoned a couple of local Suzuki dealers and asked, "Can we buy the kit at the same time we buy a brand-new RM and have you put the kit on? And, oh yeah, will you buy back the stock RM parts which

the kit replaces?"

Of course they would. They would add \$195 to the price of the RM and then subtract dealer cost of the stock parts. They stipulated that Suzuki gave them no orders whatsoever concerning this deal, so we can't say if dealers across the country will handle it this way. But we can't see why they wouldn't. Especially if you hint around that you won't buy bike or kit if they don't do you a favor. After all, there are plenty of Suzuki dealers around.

That's the way we'd handle it. And we should point out that even after you've bought your RM, should you destroy a cylinder, forking out two bills for the hop-up kit isn't a bad idea at all since you're going to get a carb, a pipe and all manner of other stuff at bargain rates.





HEWAYI SEEIT, 16 is a freaky age. When you turn 16, you're turning a corner in your life, heading right down the road to what they call 'adulthood'.

I mean, now you can handle responsibility better than before, and you like the feeling. But there's a catch...Catch-16. Once people know you're more responsible, they give you more responsibilities. You just can't go out and enjoy yourself anytime you want. Those days are over. Now you earn your good times.

But if you're into motorcycles, like I am, it's worth it, for sure. Because here's the good part of Catch-16—the sooner people know you're responsible, the sooner you'll own a bike. That's what I found out when I decided I wanted a Kawasaki, the F-11 250.

Before my dad would talk about it, I had to get together all the facts and my friends' opinions and show him the specs and explain why the F-11 was the bike for me. Like it was simple to ride and very rugged and had a good reputation, and I could ride it to school or on trails. Then we agreed I'd help pay for it.

Now I'm so responsible I can hardly stand it, but I have more good times than ever. So when you're 16, you take your good with your bad. And maybe that's how it is the rest of your life. I don't know. I know one thing—when I'm 21, I'm moving into an apartment with maid service.

# Kawasaki lets the good times roll.

Good times include riding safely. We recommend wearing a helmet and eye protection, keeping lights on and checking local laws before you ride. See Yellow Pages for nearest Kawasaki dealer. Member Motorcycle Industry Council.

# PACIFIC PLONKER

"These people, dressed as they are, mean it's time for Let's . . . Make . . . A Deal. And here is your host, Monty Hall."

"Thank you, Jay. And for our first deal let's talk to this gentleman over here. What's that you're dressed as? A wheel? With cranberries all over you? Why are you dressed like that?"

"I'm a bogwheeler."

"What's your name, bogwheeler?" "Joe."

"And what do you do, Joe?"

"I ride an RL250."

"Swell, Joe. Tell you what. I'll give you \$100 for your shoes."

"You got 'em."

"Jay is taking Joe's shoes and he's putting something inside them and now he's giving them to this young man who's dressed like a cow. What's your name?"

"I'm Mark and I ride a stock

RL250.

"Oh, double swell, Mark. Now, Joe. Do you want your shoes back?" "No, they pinch my feet anyway."

"Joe, you can take the \$100 and buy what's in the box on stage or what's behind the curtain.'

"I want the curtain."

"And what's behind the curtain,

Jay?"

'An Esther Williams swimming pool. And floating in the swimming pool is a wooden replica of an RL250 left over from a 1973 Suzuki new

model press showing.

"Congratulations, Joe. Doug will fish the RL out of the pool for you just as soon as he's finished pouring in the baking soda. Say Doug, do you want Joe's shoes? Oh, you never wear shoes, just Dunlops. Ohhhkay. Moving right along. Mark, do you want to keep Joe's shoes, which are too small for him, or trade them for what's in the box? You'll keep the shoes.

"Before we look in the shoes let's talk to Lynn here. Lynn, if you have a Cycle Works of La Habra jersey with you, you can have what's in the box.

"Here, I have it on under the barrel I'm wearing."

"So you do, Lynn. Open the box, Jay. It's full of brass. You've been zonked, Lynn.

"No, I haven't. Just what I've been looking for. Got any more?"

"You're weird, Lynn. Now, Mark, let's look in Joe's shoes and see what you've won. Two hundred dollars and a gift certificate for a flywheel weight. Wonderful. And something else for you, Mark, a booklet on trials riding by Gordon Farley, available at your local Suzuki dealer, an autographed photo of Gordon Far . . . What's that Jay? Oh . . . an autographed photo of Jeff Koskie and a road map of Arizona. Wonderful having you all on Let's Make a Deal."

he '75 RL is basically the same bike introduced during the summer of 1974. The alloy tank has been replaced with a steel container. Ah ha, an economy move. Most likely not. The alloy tank was susceptible to dents. Not crash dents, just climb all over the bike looking for balance,

type dents.

The frame is chrome moly, unique among Japanese trialers. chrome moly swingarm has the usual trials paraphernalia: cam chain adjuster, chain guard, chain tensioner and chain oiler reservoir.

The RL is the only Japanese trialer that runs pre-mix. Peeking around on the left side of the engine you can see the cavity provided for an oil pump for Suzuki's other 250 engines.

There's a handy little diagram on the left side cover demonstrating how to shift for those with a very short attention span. The shift lever angles up at about ten o'clock when in neutral. This keeps the lever out of the way and reduces the chances of bumping it out of gear.

Suzuki uses their Pointless traction and the meaning of life, and Electronic Ignition with the RL. sploosh there go the sides of the tank Traditionally, points have been the

# It's light, it's not quite right

by the Staff of SLOW BIKE



Here's stock rear end.



Doug Bradbury's long travel modification.





And Jeff Koskie's setup.

way to go for trials because there is less inclination to stall out at low rpm. Suzuki seems to have come up with a satisfactory pointless approach.

The air cleaner looks like a waffle. Or maybe a tape cartridge. One bolt on the left side holds on the cover. Removing two more bolts lets you slip out the foam cartridge.

The Suzi's brakes are strong and have a good progressive feel to them. They also dry out quickly.

The forks on the RL are in the ballpark but not the Bul park. They don't work as softly as Betors. The shocks were better liked. One Suzi owner mentioned them in the same breath with the Miller reworked Girlings.

The bike feels tall and very light. The front end has the lightest feel of any 250, too light for some riders.

Walk around and ask as many

riders as you can what they think about the RL. Hard to find anyone who would mention the stock bike with any of the Spanish bikes. Some thought it was best of the Japanese two-strokes, others thought it was the worst. It definitely has a different feel to it, because of the lightness and most likely because of the rearward peg and engine placement. Ask some national riders. Mixed reactions, overly none impressed.

Why not talk to some riders who went out and bought one? Ring-ading ding. Is this the party to whom I'm speaking to? OK if we ask you about your RL?

We're talking to Joe now, who's closing in on transferring to Amateur class. "I felt it was the only good bike from Japan. I would have bought a Bul except for the foot controls being switched around. What do I

like about it? It has a nice tank, but it's too soft. (Joe has the 1974 alloy tank, now coated with a gray putty coating.) I like the longer wheelbase and the light front end, the way it's easy to carry it over. Tranny ratios? First and second are a little too close. There should be a wider space between second and third. It needs a better skid plate, a heavier flywheel should be designed in the motor. Gearing it down tends to make it jerky."

Joe's a tinkerer. He made his bike even lighter, which helps if you're on the light side yourself. He made a new swingarm, fork tubes and alloy air box.

"It isn't as good as a Bul, but I don't think a beginner really needs a Bul. The Suzuki is a lot cheaper."

Would he buy another RL? No, probably the new 175 Yamaha. It's even lighter.

Now we're talking to Mark. He started off in trials on a TL125, bought an RL and three months later moved up to Amateur. Mark rides the bike stone stock. Hasn't even tried a Spanish bike so he can't comment about the differences. He

likes the instant throttle response. That and the lighter front end make it easy for him to maneuver. Feels the stock gearing needs to be lowered for slower going. What changes should the factory make? More flywheel, a better secured muffler and stronger pegs. Why'd he buy it? Got a good price. Next bike? Probably a Bul.

Lynn started out on an Alpina, didn't like all the work he had to do on it. His first trials bike was an RL. He advanced to the Expert class in less than a year on the RL. He likes the light front end, finds it easy to maneuver, lean and throw around. He didn't like the quickness of the power and the way it would spin the rear wheel. So he did something about it. Built a 2½-pound brass flywheel weight. Then he started building weights for other RL riders. Next he adapted some Bultaco breather fork caps to his Suzuki. Then the back end was modified. He moved the bottom shock mount forward four inches, beefed up the swingarm and bolted on some Boge shocks using the heavy compression valve and 78-pound springs. Stock

shocks measure 13 inches. The Boges are 11.9.

Handling? Because of its lightness he can move all over the bike. Sometimes it's hard to find traction with the front end up. Steering is OK, you can pull the front end up quickly and bounce off and twist through because of the lightness. Lynn feels the engine is too far to the rear, that it is basically just a reworked TS250 Savage engine, and that Suzuki needs to develop a real trials engine.

There are 300 prototypes plonking around. Maybe next year. But maybe not. Gordon Farley, the two-time English champion, announced his semi-retirement last April. He mentioned a change in Suzuki factory policy and his desire to have been able to do more development work as reasons for the move, along with a loss of interest in riding. Implied in his statements was a hint of restraint in development work.

Would Lynn's next bike be a Suzuki? No, probably a Montesa.

One of our trials testers, Doug, got off a '73 Sherpa to buy a Suzuki in



Gunnar forgot to bring funny hat and rubber boots.



Howard brought funny hat, made in Spain.



the summer of '74. At a recent local trials (just four of the top ten National riders attended), finished first privateer in the Expert class behind six factory riders from Honda, Montesa and Bultaco. In the same event the Amateur class winner was aboard a Suzuki.

Here are some of the reasons he made the change to Suzuki. The RL was taller and fit his body geometry better. It felt lighter, easier to flick around. He also mentioned that the bike was a breeze to work on. Here are his modifications.

Lower the gearing. Go with the optional 14-toother.

Doug added a 21/2-pound Lynn Barnes flywheel weight. The change is significant.

A slower throttle assembly. Doug rinky-dinked a Honda 90 setup, most changers go for the Bul

A plastic Andre bash plate that wraps up around the cases for better rock protection.

A pair of 6½-inch-rise Grahams aluminum handlebars.

Tires. Two-ply Dunlops made in England.

Jetting. The '74s were jetted too rich. Try 135 main, 20 pilot and lowering the needle one notch.

Fork stops were filed down so that the fork tubes now stop just short of contacting the gas tank.

One more change. Long travel suspension. Doug moved the top shock mount forward four inches and the bottom mount forward five inches, kept the stock shocks and fitted stiffer springs.

He liked the RL's lightness, being able to bounce off of stuff and flick the bike around. He also liked going upstream, riding a bike that everybody else wasn't riding. But still, after a fling on our test Sherpa, his nine-month ride on the RL ended.

To round it off we went riding with Jeff Koskie, sponsored by U.S. Suzuki. Jeff has been riding mostly in Arizona this year. While there is only a smattering of Suzukis in Southern California Jeff told us they're very popular in Arizona trials.

After riding Lynn Barnes' bike Jeff went to the Boge rear end modification. He moved his bottom mount forward 31/2 inches, beefed up the swingarm, used 78-pound springs with stock motocross damping. He's real happy with the suspension setup and after riding it we understand

Jeff added a wraparound belt to the front of the frame because of the forward mounting. Probably run about \$20 at a shop. Tires? The new Pirellis. TM250 fork springs slip right in and improve front suspension. Ieff vented the fork caps and uses 20-weight Torco. He added a gas line filter and a Skyway muffler. Other changes were quite similar to those Doug came up with. Down one tooth at the counter, 135 main, 20 pilot, cut the fork stops, add the flywheel weight. Barnes mentioned that the externally added flywheel weight will eventually separate the crank halves, connected with a pin. Repair requires splitting the cases and welding the crank half



Jeff Koskie's Team Suzuki modified stocker.



#### SUZUKI RL250

PRICE(retail, approx.) \$1145
ENGINE TYPE Two-stroke, single
DISPLACEMENT 246cc
BORE & STROKE70mm x 64mm
COMPRESSION RATIO6.7:1
CARBURETION 28mm VM28SH Mikuni
HP at RPM 18 at 6000 rpm (claimed)
CLUTCH
PRIMARY DRIVE
TRANSMISSION RATIOS:
The state of the s

- 2.42:1
- 2) 1.80:1
- 3) 1.41:1
- 4) 0.86:1
- 5) 0.64:1

FINAL DRIVE . . . #428 chain, 3.60 ratio . . . . . . 54-tooth rear sprocket AIR FILTRATION . . . . . Oiled foam ELECTRICAL SYSTEM . . PEI electronic LUBRICATION . . . . . . . Pre-mix, 20:1 RECOMMENDED FUEL . . . . . Premium RECOMMENDED OIL . . . . . Suzuki CCI FUEL CAPACITY:

4.9 liters (1.3 gallons)

FRAME.... ..... Chrome moly SUSPENSION:

16.7 cm travel (6.5 inches) forks 7.7 cm travel (3 inches) shocks WHEELS & SPOKES:

Shoulderless Takasago alloy TIRES:

2.75x21 4-ply trials 4.00x18 4-ply trials

#### DIMENSIONS:

Wheelbase . . . . 135.9 cm (53.0 inches) Clearance . . . . . 29.2 cm (11.4 inches) Seat height . . . . . 78.2 cm (30.5 inches) Handlebar width . 84.1 cm (32.8 inches) Weight . . . . . . . . 95.3 kg. (210 pounds) Weighed with:

Oil and one gallon of gas; 43.6 percent on front wheel; 56.4 percent on rear wheel.

#### BRAKES:

Front Cable-operated drum
Rear Cable-operated
INSTRUMENTS None
LIGHTSNone
SILENCERYes
SPARK ARRESTOR Yes, approved
PRIMARY KICK Yes
WARRANTYNone
PARTS PRICES:
Piston assembly
(includes nin and circlin) \$15.89

Rings .....\$10.69 Shift lever .....\$5.83 

pins. This means you can't replace the bottom end bearing, but it isn't likely to go anyway.

Final touch. A hand-shaped bash plate made of Kydex thermal plastic, available at plastic shops. Heat it to 350 degrees in an oven, turn the bike upside-down and mold the plastic to personal taste.

How about trail riding a trials bike? Right there on the RL is a little disclaimer indicating it is for trials competition only. But they all say that. We liked the RL as a trials-type trailbike. Very light, tranny ratios to fourth and fifth aren't as wide as some bikes'. Let's go trail riding with Chet and Don. Chet's on a Husky WR250 and Don's on a Penton 250. Zap along this straight here. They're pulling away a bit, but Chet's turning into his favorite mudhole, the one that twists between the large ferns. Stay on up on the pegs, square off the corners with the throttle and body shifts. Neat. Maybe shift down to third if you need some braking or if it gets real tight, otherwise leave it couple of trail rides. Good clean fun in fourth and let the engine pull. Watch it. Almost rear-ended Don. Caught up in the tight stuff. Here number of RL owners he has talked come some whoops. This isn't too to who commented on how they like bad. Chet and Don aren't racin', this it as a trailbike.



It's a clean machine.

is a friendly li'l trail ride, but the RL's staying close, pretty stable considering. Cut inside at the corner, don't dab.

We wound up taking the RL on a unless you like to sit down. But who sits down? Koskie mentioned the

# **BITS & PIECES**

Gas cap has breather and handy little hole to stick it into.

Kill button on the left side.

Kickstand is on the right side.

Throttle has rubber dust cover, but hand levers don't.

Fenders are flexible plastic.

There's a handy indentation shaped into the pipe so the kickstarter hunkers right in out of the

No headlight or speedo, the bike must be for trials.

Krizman spark arrestor/silencer is rubber mounted, could be sturdier. Ours fell off.

There are 24 pieces of rubber in the head and cylinder to help quiet things.

Footpegs are spring loaded, folding, serrated loops welded to a solid steel peg. The ends are open for drainage.

The bash plate is no more than adequate. It is drilled for drainage but does not provide protection for the cases.

A 28 Mikuni on the large side for trials feeds the 70 x 64mm powerplant.

Continued on page 81





Cross-ups, stages I and II. Stage I by Don Draz and stage II for advanced students by Ray Lopez.

How to go no faster but feel better anyhow

# CROSS-UP

by George Wegner

Here before your very nose, for the very first time anywhere, we will reveal the very little known tricks and well guarded secret techniques of crossing up.

There's no reason at all why you can't look every bit as smooth, stylish and polished as the leaders. Look good to your friends and hot at least a hint of what it's all about.

running eighth or twenty-eighth. What the hell. You're out there to grab all the gusto. Cross it up!

Those of you who have at one time or another gotten it a little sideways in the air and managed to land successfully will obviously have a slight advantage because you have loving loved ones while you are Victims of unsuccessful landings will

probably feel their stomachs cringe at the thought of leaving the earth's surface for more than an instant. The lucky individuals out there who have felt the joys, the great personal rewards, and gained the everlasting respect of wide-eyed friends and fellow competitors have no business reading this. You should be out there, hanging in the heavens for all

the world to see.

To begin with, you should be in at least decent shape both physically and mentally, with reflexes at least as fast as a cat's.

Great speeds are not necessary for learning. What is necessary is the right jump. The best kind is the platform type where the landing area is at the same altitude as the top of the jump. That way you won't need speed to get the necessary altitude and you won't have as far to fall. The only problem is making sure you have a safe spot to land when you can't see it.

The act of crossing up is actually very simple; there are only three basic movements: First, the launch. It's critical. Because it has a direct effect on the overall "look," and because it is a deciding factor in whether or not you'll survive to make later attempts. With each performance, it seems to be of less importance. But that's only because of the vast amounts of knowledge and experience you have gained that you put to use each time you lift off. You must relax and get used to having your body separate from the machine (except for your hands and

feet, of course). Just push the bike as far away from you as you can, without letting go.

When lifting off from some jumps, especially turn-jumps, you've probably noticed that the wheels sometimes seem to come up and out from under you. Let them, to a degree. This motion is stopped by flopping the front wheel to the side that's coming up, like in a slide, but in the air. Also by pushing the bars away from you. You'll have to feel it out. It all comes with practice.

Second is the snap. This is where you're really stylin' and it only lasts an instant, so give it all you've got. It's the moment when you've reached maximum altitude and when you should be as crossed-up as humanly (but safely) possible. Keeping one arm locked out straight and everything else bent is the warm way to go. Obviously if you're six feet, ten inches tall and have arms as long as an orangutan, you'll look just that much better.

and experience you have gained that you put to use each time you lift off. You must relax and get used to having your body separate from the machine (except for your hands and stretching so far that you'll hold the

farthest grip with just a finger or two.

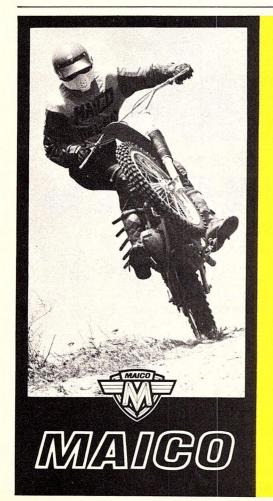
Third, the rollout. This is where you're slapped back into reality. If you don't make it through this part, all that slick, trick showing off means nothing. The idea is to maneuver the bike back into a position similar to that needed for landing. Namely, the front wheel is pointed in the direction of motion with the rear wheel down and the front end tilted up. Flopping the front wheel helps.

Would you believe that some guys can actually do 360s in the air and land without a problem? No? Neither do we.

These same crossing-up techniques can also be used while wheelieing. It's especially neat to wheelie out of corners while all twisted up.

That's about it. Hard to explain, easy to learn — in time. Just note that the editors of the Mighty DB will not accept any responsibility for damage to bodies, machines or minds while engaging in such foolishness.

Keep in mind: you're going to have to land with the rubber side down and the shiny side up.



# You can't beat cubic inches!

It takes horsepower to win...the kind of brute power that comes only from a big inch displacement engine. 

The Maico 450 is the biggest, most powerful engine you can control for motocross. Nothing can get from corner to corner faster. 

To win you need a combination of a big engine that produces plenty of torque/horsepower plus the kind of handling that made Maico famous in world-wide motocross competition. Only Maico builds an MX machine that can handle this much horsepower and still go straight! 

Steve Stackable, Jim West, Rich Thorwaldsen, Gaylen Mosier, CMC high point man Bill Rubly, Luke Messer and many more top name racers, are all up front with Maico 450's. You'll be there too, on a Maico.

SEE YOUR DEALER OR WRITE FOR FREE LITERATURE

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# MAICO/YAMAHA 250'S



Five-speeder meets single-shocker

# THETWAINMEDIS

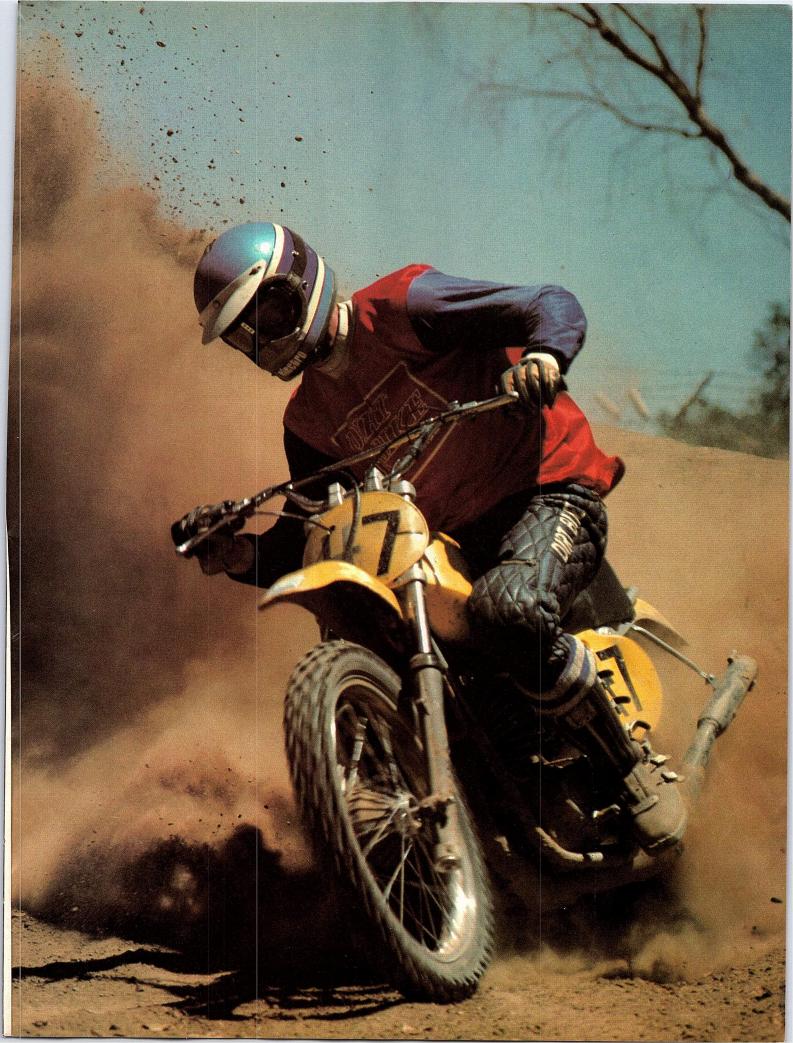
by the Staff of DIRT BIKE



Fast, high-speed jumping is comfy on the Yammie.

Think of two hot bikes in the 250 class. One from Japan with all the latest trick stuff; the other from Europe, a proven winner. Right. Yamaha and Maico. We had both around and a shootout was the only logical thing to do. The Monocross is new and, believe it or not, so is the Maico.

Maicos have been around for years, always on the top of its class, but now the 250 has been updated, with another gear, a lot of plastic and a new front end. The 250 Yamaha started life as a DT1, but it has shed its skin a couple of times since then. First there were the YZs,





then the racing monoshock for the '74 GP season, and now there's a Monocrosser for the masses, the MX250B. It'll probably even replace today's 250 YZ. It's an interesting machine, the only Japanese 250 that comes close to the European factory racers.

On to it.

# 250 MAICO FIVE-SPEED

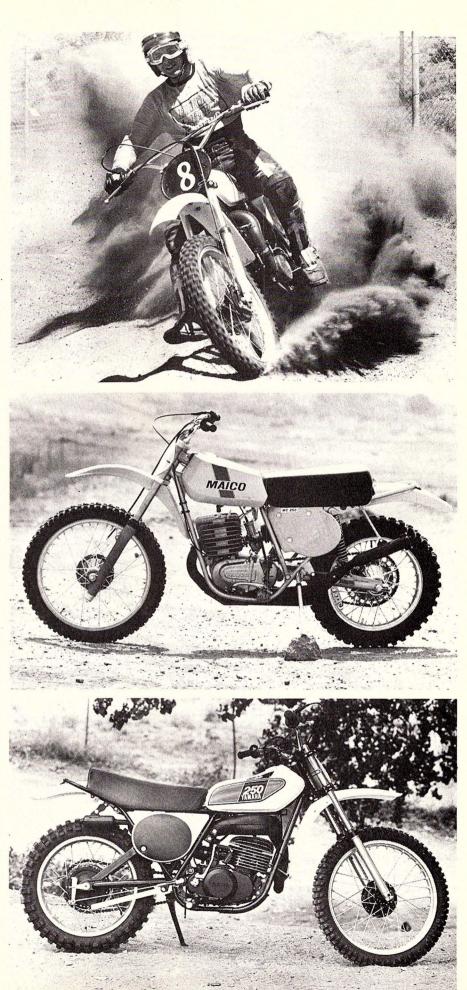
At a glance, it looks like only the tank and fenders are new, but there's much more. There's a new frame and swingarm, new forks and sliders, a somewhat different rear wheel, new footpegs (but don't cheer yet), new fenders and side number plates, new tank, new engine cases, new clutch, gearbox and shifting system, a differently ported cylinder with pipe to match, and, and . . . . Well, you get the idea.

What isn't new? The seat is the same. So's the carb. And the front wheel is unchanged. So are the crankshaft and the ignition cover.

It's a new bike. Frame changes were made for two reasons. The longer travel front wheel needed more room, so the fork crowns and steering head bearings were raised 25mm. The fifth gear needed more room, so the cases are wider on the sprocket side. That moved the chain to the right and that required a wider frame and swingarm shock mount. Then the rear wheel had to be machined differently to move the sprocket over to match the chain.

These five-speed engines will not fit into the old frames, but the old engines will drop into the new frame if the old rear wheel is used. The new forks can be used on your old model if the crowns are bored out to 38 instead of 36mm for the bigger tubes. The new fenders and plates bolt right on the old bikes, except that the rear fender has to be cut a bit under the seat. The aluminum tank fits on the new bike, but the plastic won't go on the old ones. The air box is the same. Got it?

Now the transmission. The pictures tell the story. No interchangeability at all. Everything is new: cases, gears, shafts, shifting system, clutch, bigger crank seal, bigger bearings for the mainshaft. And although the same cylinder casting is used on the five-speeder, the porting and pipe are new.



Primary drive gearing is changed from 21 and 39 (1.86:1) to 18 and 41 (2.28:1). In other words, the transmission now goes slower and that makes smaller rear sprockets possible without changing the overall gearing. Old sprockets were 12 and 58; now they're 13 (less bend to the chain around the countershaft) and 56 (smaller and lighter, especially when you consider all the extra chain links).

# MOTORING THE MAICO

If you're used to the four-speed Maico, you'll know things have changed when you ride this one. The rear is still the same, but there's something strange about the front. Sometimes it wants to wash. Maico heresy. Although the basic frame measurements are the same, it'll still surprise you the first few times you ride it. You look down to see if there's a big M on the tank. As a matter of fact, it dumped Gunnar on his back in front of an editor from another magazine. Embarrassing. Especially since the guy had a camera around his neck.

All of which brings us back to the front forks. As we said earlier, the steering head and fork crowns have been moved to give the wheel more room. Maico is the first brand to go about this long travel fork business the right way. Instead of using longer damper rods and letting the forks slide further apart (causing high wear and unstable forks), they made longer and bigger steel legs, longer sliders, and even changed the frame. We measured 195mm travel (up from 175) of the most stable, reliable, sturdy and pleasant front end we've ever come across. Equally important, there is no binding when landing flat on both wheels like there is with most other long travel front ends. The springs are very soft and when you go straight over the whoopdies, it absorbs the big and the small stuff amazingly.

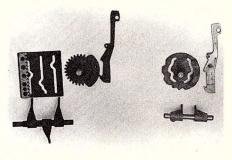
Very nice. But here's where the problems start, and the problem is cornering.

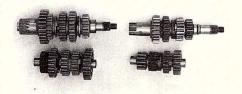
The new bike will let you down not like last year's. We gave it a lot of thought, trying to find out why the Maico does surprise things to you in the turns. It's always before you get the gas on; after that everything is just fine, and it still slides as well as ever. We narrowed it down to this: problem is controlling the heat and As you go into the turn, you put a lot the wear and fading it causes. A of weight on the forks and they better shock is necessary.

compress easily. The front end gets very low and the rake gets very steep. For every 25mm of compression, there's a loss of one degree of rake. So if the forks go down 100mm, there's only 26 degrees left and it's very easy to turn the front wheel just a little too much and break it loose. There you are on the ground. A pair of lower bars helped considerably. They keep you conscious of what's going on, keep you from overreacting, and you stay upright. Once we got used to the steering, there was less of a problem, and we ought to mention that the slower folks around here never even noticed the problem at all. Ha. What do they know?

The rear suspension is the same as last year, non-gas Konis with 100pound springs. So, just like last year, after the first few hours they started bottoming. But the return damping was still acceptable.

These shocks are very sensitive to heat, and after 15 minutes on a





The new shifting system (on the left) is a sliding selector plate with three shift forks on the same splined shaft.

rough sand track they're too hot to put your hand on. We tried a pair of aluminum bodied Konis with both 110- and 100-pound springs, and more compression damping. That eliminated the bottoming, but the heat buildup was still intense. These shocks worked best with the 100pounders while the stockers liked the 110s.

The Maico's rear suspension is below average by today's standards with those Konis, and only adequate with the aluminum jobs.

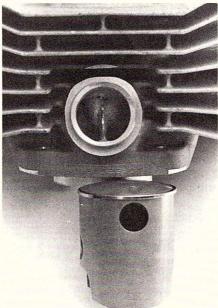


There's 195mm of stable, long-lasting superior travel in there. The Akronts aren't as good as D.I.Ds but will last for most riders.



Another difference from riding last year's model is felt with the new box. The lever throw is now half of what it used to be, and since the tranny doesn't rotate as fast anymore, there's more torque on the gears (undercut on the dogs about five degrees, incidentally). It makes it harder to upshift without turning the gas off or using the clutch. Gone is the gearbox with the almost perfect throw that could be shifted under load. You'll find yourself putting a lot more pressure on the lever and using the clutch more on upshifts.

At least the clutch is smooth, doesn't drag, and is easy to use. The primary kickstart that's been there for years can now be enjoyed. As a matter of fact, there's so much less spring on the other end of the clutch that ours started slipping by the end of the test. More springs are needed. The increased torque on the clutch caused by the primary drive gear change is apparently just barely equalized by better friction in the new clutch. Back to where they



The tall Mahle piston uses a chromed L-shaped piston ring. The round hole is the fifth transfer vent. The transfer port is located in the bulge seen in the top of the intake port, which creates the interesting U-form shape of the intake port. The rest of the porting layout consists of dual bridged exhaust port and dual transfer ports on each side.

started, in other words.

Ratios for the top four gears are closer together and a new first is added, for *very* slow turns — not for starts. Top speed in fifth is enough for any reasonable track.

Our other complaints are that when shifting down from second we sometimes hit neutral, and every once in a while we found a neutral between second and third. Compared to the four-speed, this tranny requires a positive shift, and it's almost hard to feel the completed shifts.

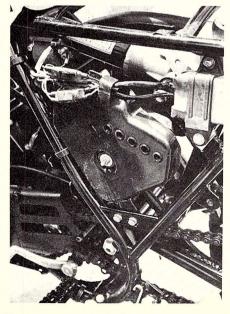
Power from this Maico doesn't strike you as being lightning-fast, but neither has that of any previous Maico. On the track, though, you can keep up with almost anything. It's because of the big flywheels in the engine. The crankshaft is still the same as the 400's (different stroke, of course), and that's a lot of flywheel in a 250. This gets you a lot of advantages: first, it's a super starter. Second gear is no problem. Just rev it up to about nine grand and dump it. The flywheel takes you through



Gunnar is using a smoother line; Zeal will try to square off.

the tendency to bog, like an open class bike. Traction on slippery surfaces is good, since the motor doesn't rev up quickly if the rear tire loses its bite. This machine tracks straight.

Of course it isn't snappy, for jumping little holes out of corners or



clearing big sand track hoops.

remember to keep the gas on in the air because it reacts too slowly to let you do it when touching down. If you fall off the powerband, you'll have to downshift; this engine's range is narrower than last year's, mainly due to the new pipe.

Our test bike didn't pull as many ponies on the dyno; not when you compare it to the figures the competition puts out. Part of the reason was that we dynoed before the bike was completely broken in, and we know there's more in there. So does the factory; we got a copy of a factory bulletin which Gunnar translated for you that's in these pages somewhere. And we know that the factory has tested some four-speeders with less flywheel weight, but since the five-speed box lets you shift more and keep the rev range tighter, there's less need for lighter flying weights. Still feels like a tad much, though.

We covered cornering, but what about straight-line handling? The

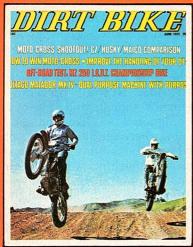
forks are so smooth and absorbent Jumping straight is easy, but that you can press your luck so much that the back end will start bouncing and trying to come around by swapping sides. More throttle is the answer. Unless you're already to the stop. Then you're in trouble. Maybe you can catch the next gear without using the clutch. Maybe not.

Other than tempting you to get in over your head, the Maico tracks absolutely straight both on and off the ground. It's hard to tell that it weighs 102 kilos. It feels like less.

Remember the new footpegs? They weren't a big success with our test riders. When Maico finally changed them, we expected something really grand, but then they came up with these. Now you have to stand on the front edge of these backward-leaning skid pads. At least the old ones were easy to weld on.

Starting was easy on the bike and the pedal folds out of the way completely. An excellent design; one of the best in the business. The brakes are too. The front requires

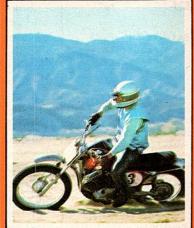
Continued on page 70



# DIRT BIKE COLOR ACTION POSTERS

1. Ist ISSUE OF DIRT BIKE

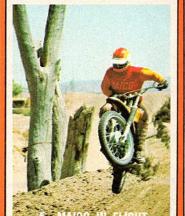




Got a section of wall that measures 17 x 22 inches? Any old wall will do. Now, here's how to make that wall worth looking at. Hang up one or more of these far-out, blow-mind, trick action posters. The cost? It's right. Just \$2.50 each (plus 25¢ postage and handling), \$7.50 for any four posters that catch your eye (plus a half a buck for postage and handling). Or go all the way and do up an entire room — \$14.00 will get you all eight (of course that same 50¢ added for postage and handling). Order now — that empty wall can't be that interesting to look at.

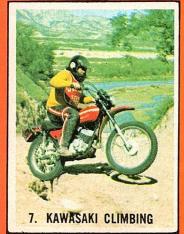
2. ACTION AT THE INTER-AM

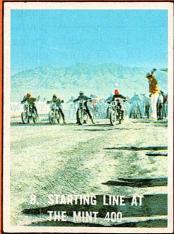






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#### MAICO/YAMAHA

Continued from page 68

strong hands and needs to be very well lubed from lever to brake cam to work efficiently. The changes on the rear were all for the better; there's no spongy feeling now, and even if it's not up to Indy car standards, it's a good motocross stopper.

#### **BITS & PIECES**

intake manifold. It split.

Lever covers are still missing. The seat is first-class.

And the kill button needs to be 3M-ed inside to keep it from falling

apart.

# YAMAHA MX250B MONOCROSS

The MX250B is an update of the original monoshocked YZ with a modified DT engine. The frame The fork seals leaked from Day measurements are very similar to the

We had to replace the rubber the bike gave us no running trouble (except two incidents we'll explain in a minute), just a glance into the owner's manual is enough to frighten even the most experienced serviceminded rider. It's all preventive maintenance, though, and some of it can be ignored - like changing spark plugs between motos. It's not as hard as it looks either, but it is a complicated machine. Like the air cleaners. Yes, plural; there are two - a little one on each side. And the pipe. It's all over the bike. Or the electrics; there are eight wires going into the magic box. And then there's the shock itself.

But everything is well thought out and very carefully engineered. Never gave us any problems.

Still, our advice is that the first thing you do before buying one of these bikes is to find a dealer who is equipped to work on the monoshock. He has to have the nitrogen tank, regulators and the hose with injector needle before he can tune your bike for you. Maybe just from knowing your weight and riding style he can get it in the ballpark before delivery, but expect more trips down to your old friendly for adjustments in the next two weeks. Have him promise to do all the initial adjustments for free when you buy the bike.

If you're thinking about doing it all yourself, consider the \$200 equipment investment, and that tuning adjustments are a delicate affair about which very few have the knowledge. You have to know what you want.

But once it's dialed, the rear works super — and think of the advantage you'll have over the other Monocrossers who aren't using the suspension to its capabilities.

As you might expect from this suspension, there is very little fading - if any. Even after the longest and roughest of events. We ended up using the almost-stock setting of 275 pounds of nitrogen and the stock spring. These settings were for a very easy track. For a rougher track, more gas pressure would have been needed. The gas pressure in the shock is acting as a spring along with the regular spring, and they make Modifications have also been the bike feel very stiff at first. It's but the harder you ride, the better it feels. We figured the rear end would be good, but the rest of the handling Is all this starting to sound like a and the front forks took us by



# <u>Hausmitteilung</u>

Von Abtlg.: . TB

an Abtlg .: . Cl. Th Export Verkauf, EL, Rep-Montage

Betr: Leistung MC 250

Die Leistung der MC 250 wurde ab Juni 1975 angehoben. Es wurden die Steuerzeiten im Zylinder und die Verdichtung wie folgt geändert:

Auspuffschlitz von Oberkante Zylinderbuchse 37 mm, Breite 58/52 mm

Einlass 113 mm, Breite 52. Die geänderten Zylinder unterscheidet man durch die Stempelung ab o6/75 (Monat/Jahr) Zylinder mit erhöhter Leistung.

Das Verdichtungsvolumen im Zylinderkopf (ab Dichtfläche gemessen) wurde auf 25 cm³ reduziert (18,5 mm Tiefe), damit ergibt sich ein Verdichtungsverhältnis 1: 13. In die so geänderten Köpfe ist "25" eingeschlagen. Diese Zylinder und Köpfe ergeben eine Höchstleistung von 36 PS bei 8000 U/min.

TB/GO

This factory bulletin tells you that the cylinder and head were changed in June of '75, on the new 250s. The exhaust port is now 37mm from top of the liner and 58mm wide at the top, 52 at the bottom. The intake is lowered to 113mm from the top, widened to 52mm. Cylinders already changed at the factory have the stamping 06/75 (month/year) and newer in the cylinder. The combustion chamber volume is decreased to 25cc measured from the gasket surface. Cylinder heads with the smaller volume have the stamping 25 in them. This has raised the compression to 13 to 1. The maximum output is said to be 36 horses at 8000 r's on the friendly factory dyno.

One. The replacements did too.

Magura throttle and levers are A-1 — except for the new plastic lock screws on the adjusters that stripped.

Countershaft sprocket is now held on with a circlip. Works just fine.

Side number plates and rear fender cracked.

Brake pedal needs a new pivot bearing (too much wear) and a hole in the foot tab to vent the mud.

The shoulderless Akronts dented easily.

YZ's, but this is a later design with longer life the objective. Gearbox ratios are the same except for a lower first, but the cylinder is different. The steel-lined MX barrel is reworked for more and wider power.

made to the monoshock unit for hard and uncomfy if you go slow, better damping, and the older models can be updated to the new specs.

good package? It is. And whereas surprise. The Mono handles and

steers really well. Up front are a pair of well-balanced front forks, and the bike steers almost like the old ol' Maico. It slides well too. Helping the handling is the very low engine location, making the bike feel stable and easy to lay down in the turns. This one tracks absolutely straight, too. You'll have to bottom the rear end (because of too little gas pressure in the shock) before it starts to go sideways. If you like to turn even quicker, the fork legs can be pulled up through the fork crowns. We got to like them pulled up 10mm and that's the way we rode and measured the bike. In good Japanese tradition the brakes were absolutely unbeat-

The left footpeg modified with a round file

able. The front requires only one sensitive finger (and needs to be gotten used to) and no effort — something that we liked. The rear worked just fine too, and did not kill the engine during braking. It's the same setup as before, and the reason it doesn't kill the engine anymore is that now there's more flywheel to keep it alive. The flywheel has been the problem all the time, not the rear brake. It helps make this bike pleasant to ride compared to the old YZ; that was a very nervous racer.

Power pickup is much smoother and more reliable than the older racing Yamahas. The engine was very competitive and it stayed strong; at the end of the test the piston, cylinder and ring were still in good shape. (By the way, we were using Yamalube mixed 20 to one.)

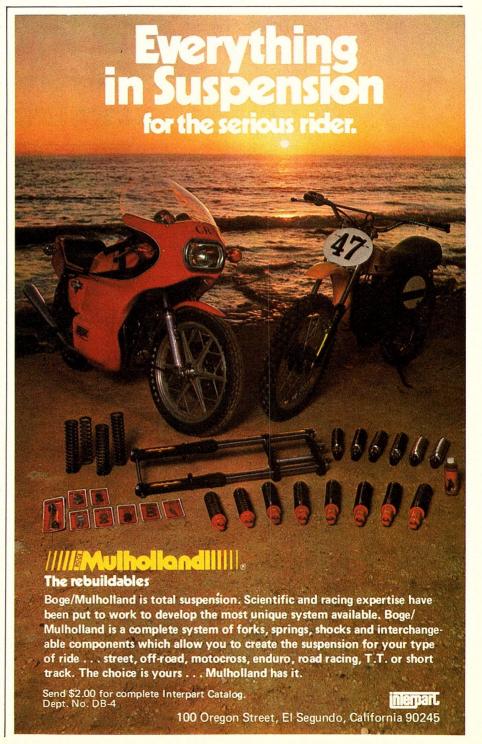
The reed valve doesn't make an engine pull from zero rpm; this engine has a very clearly defined powerband that's easy to stay within, and when it does come on the pipe, it happens smoothly and predictably.

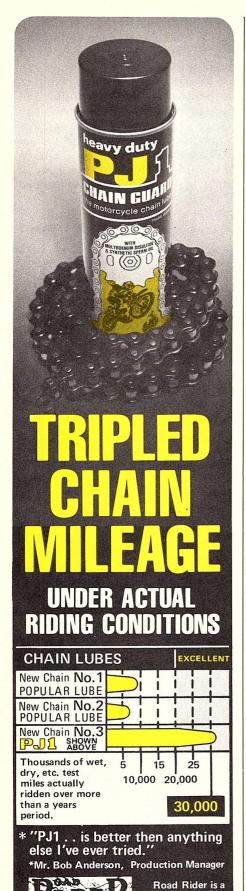
Shifting is short, precise and effortless — unless you're in a hurry. With the engine in such a low position, the shifting shaft is located 15mm below the footpegs slanting up, and you have to move the shift lever upwards and back to upshift.

It's a little short for size ten boots, too. The whole arrangement actually works better than it sounds, but it didn't pass with flying colors.

The clutch is absolutely faultless in operation — no drag, no slip, and easy to pull. The bike is an easy starter with a good spark at low rpm. The carb's starting system really makes cold starts easy, but we have said it before and we'll say it again: give us back the lever instead of the tiny little pin. Please.

After about ten hours of riding we experienced a problem that wasn't





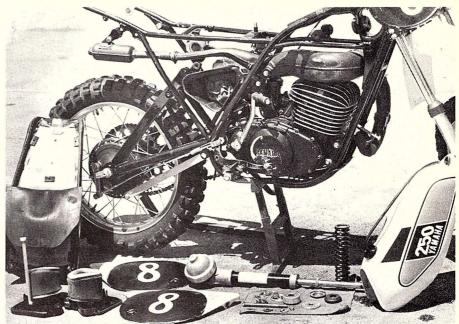
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This is the minimum weekly service teardown: air cleaner elements, clean and lube rear shock mount, clean and lube the felt ring on the shock absorber piston rod.

the bike's fault. The big nut that holds the primary drive gear on the crankshaft came loose and was ground to pieces. The nut hadn't been tightened enough at the factory, a problem that they have since corrected. After a fix, we had no more difficulties with it. The second problem was water. While we never had any hassles with wet electrics, this can't be said about the air cleaners. At a famous western two-hour Grand Prix we entered, there were these creek crossings. As soon as the bike saw the water it started coughing and sputtering. After the water crossing it took then it was fine until the next water crossing, whereupon it took about 500 meters . . . A good duct tape job behind the air cleaners is necessary to keep the water out. We also bent the brake lever all the way after sticking it into a fallen bike. Bent brake levers seem to be a common problem on the Monos, since 90 percent of all of those we've seen have had the brake pedal bent at least once.

One of the very first times out on the new bike, a rock shattered the front number plate and the black contact paper came off the sides. The plastic in the fenders, air box and side number plates seems to be of top quality, but not so the front plate. Evidently. Except for Gunnar falling down once and bending the bars, and losing the rear rubber

splash guard, absolutely nothing fell off, cracked or broke. Not even the complicated exhaust pipe. Very good. The way the pipe is sectioned actually helps insulate it from vibration. It's made in three pieces and held together with springs so that the engine can move in any direction relative to the pipe.

## **BITS & PIECES**

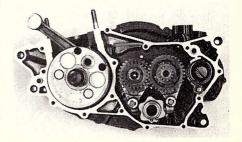
The throttle grip has to be one of the best we have seen, with a little wedge sticking out into the rubber grip and forming a seal to keep dirt out.

We never got the throttle working about 500 meters to clear up, and nice and easy because of the hard slide spring in the newer, larger-slide Mikuni.

The front fender is too short in its stock form, but Yamaha sells an excellent extension that we liked.

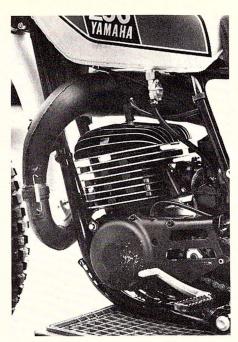
The kickstart lever works well as a kickstarter, but can be very hard to fold out. Keep the hinge well lubed.

After having cleaned the air



The basic engine layout is very simple. The crank has the balancing holes stuffed with sheetmetal plates.

1	
1	NAALCO NACZEO
١	MAICO MC250
١	Price (approx. retail, West Coast) .\$1748
١	Engine Two-stroke single, piston port
١	Displacement
	Compression Ratio (theoretical):
١	12:1, 13:1 on bikes manufac-
	tured after June '75
1	Carburetion:
١	Bing 36mm, model V54-1-36-109
١	Standard Jetting:
١	175 to 180 main (we used 180),
	280 to 285 needle jet (283),
	35 pilot (30), #1 slide and
	#1 needle (middle position)
	Horsepower: 33 claimed (36 on later models)
	27.0 measured at rear wheel on Will
	Pfitzenmeier's dyno at 8000 rpm
1	Clutch Wet, 6 pairs of metal plates
	Primary Drive:
1	Double row Reynold chain,
	Ratio 18:41 = 2.28
	Transmission Ratios:
	1) 2.25
	2) 1.80
	3) 1.44 4) 1.20
	5) 1.00
	Old four-speed 1.99; 1.52; 1.23; 1.00
	Final Drive:
	520 chain;
	13-tooth countershaft;
	56-tooth rear sprocket;
	Ratio 4.32
	Air Filtration Twin Air foam
	Electrics:
1	Appt. magneto; Internal rotor with points
	StartingPrimary kickstart
	Lubrication
	Recommended Fuel Premium
	Recommended Oil Bel-Ray MC1
	Fuel Tank Capacity9.5 liters
	Frame Chrome moly double cradle
	Suspension:
	Front: Maico's own design with 195mm travel (measured);
	Rear: Koni shocks with 165mm
	Rear: Koni shocks with 165mm
	Rear: Koni shocks with 165mm rear wheel travel (measured) Wheels & Spokes:
	Rear: Koni shocks with 165mm rear wheel travel (measured)
	Rear: Koni shocks with 165mm rear wheel travel (measured) Wheels & Spokes: Akront shoulderless rims with 4mm spokes
	Rear: Koni shocks with 165mm rear wheel travel (measured) Wheels & Spokes: Akront shoulderless rims with 4mm spokes Tires:
	Rear: Koni shocks with 165mm rear wheel travel (measured) Wheels & Spokes: Akront shoulderless rims with 4mm spokes Tires: Front
	Rear: Koni shocks with 165mm rear wheel travel (measured) Wheels & Spokes: Akront shoulderless rims with 4mm spokes Tires: Front
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	Rear: Koni shocks with 165mm rear wheel travel (measured) Wheels & Spokes: Akront shoulderless rims with 4mm spokes Tires: Front 3.00x21 Metzeler Rear 4.50x18 Metzeler Dimensions: Wheelbase 140 (+2 -0) cm Swingarm length 45.8 cm Ground clearance 18.2 cm Bars, height 50 cm Pegs, height 32.0 cm
	Rear: Koni shocks with 165mm rear wheel travel (measured) Wheels & Spokes: Akront shoulderless rims with 4mm spokes Tires: Front
	Rear: Koni shocks with 165mm rear wheel travel (measured) Wheels & Spokes: Akront shoulderless rims with 4mm spokes Tires: Front 3.00x21 Metzeler Rear 4.50x18 Metzeler Dimensions: Wheelbase 140 (+2 -0) cm Swingarm length 45.8 cm Ground clearance 18.2 cm Bars, height 107.5 cm Bars, width 86.0 cm Pegs, height 32.0 cm Pegs, width 57.0 cm Seat Height 86.5 cm
	Rear: Koni shocks with 165mm rear wheel travel (measured) Wheels & Spokes: Akront shoulderless rims with 4mm spokes Tires: Front
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	Rear: Koni shocks with 165mm rear wheel travel (measured) Wheels & Spokes: Akront shoulderless rims with 4mm spokes Tires: Front



Notice the shift lever position, open chain guard, Allen head screws in the side cases, the new petcock and the rubber blocks between the fins.

cleaners, you may have a problem getting the right one on the left side and vice versa. Remember — the white cage is to the left and the black is to the right.

The gas tank filler hole should be on the side, like on the YZ125.

The D.I.D 520 chain on our bike stretched very little during 20 hours of running.

There was a new petcock on the bike with a flow of almost 70 liters per hour.

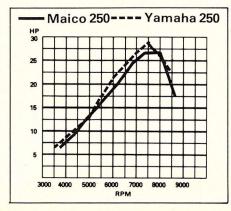
We filed bigger holes in the footpegs and brake pedal for the mud.

D.I.D rims, of course. Good stuff.

# AND NOW TO THE EXCITING PART

Round One: Power and performance.

The Yammie pulled the most horses on the dyno and was also quicker down the straights, but the Maico will usually win the first



# YAMAHA MX250B

Price (approx. retail West Coast) \$1288
Engine Two-stroke single, reed valve
Displacement
Bore & Stroke 70 x 64mm
Bore & Stroke70 x 64mm Compression Ratio7.54 to 1 (actual)
Carburetion:
Mikuni 38mm, model VM38SS
Standard Jetting:
Main jet #390, needle jet #Q-0,
Needle 6F16-3, pilot jet #60,
slide cut #3
Horsepower:
29.0 (corrected) at rear wheel on Will
Pfitzenmeier's dyno at 7500 rpm
Clutch Wet, multi-plate
Primary Drive:
Straight cut gear, ratio 73:27 = 2.703
Transmission Ratios:
1) 1.833
2) 1.409
3) 1.166
4) 1.00 5) 0.857
5) 0.857
Final Drive:
D.I.D 520 chain;
13-tooth countershaft;
50-tooth rear sprocket;
3.846 ratio
Air FiltrationTwo fuzzy foam
Electrics:
Hitachi CD pointless ignition,
(inner rotor)
StartingPrimary kickstart
Lubrication Pre-mix, 20 to 1
Recommended Fuel Premium
Recommended Oil:
Yamahalube or bean oil
Fuel Tank Capacity 8 liters
Frame Double cradle, monoshock
Suspension:
Front: telescopic fork with
177mm travel (measured); Rear: Yamaha's own developed
monoshock with 170mm
rear wheel travel (measured)
Wheels & Spokes:
D.I.D shoulderless rims
Tires:
Front
Rear4.60x18 Dunlop
Dimensions:
Wheelbase 144.5 ( $+2 - 1.5$ ) cm
Swingarm Length
Ground Clearance23.5 cm
Bars, height
Bars, height
Bars, height       100.0 cm         Bars, width       90.0 cm         Pegs, height       30.5 cm
Bars, height
Bars, height       100.0 cm         Bars, width       90.0 cm         Pegs, height       30.5 cm         Pegs, width       45.5 cm
Bars, height       100.0 cm         Bars, width       90.0 cm         Pegs, height       30.5 cm         Pegs, width       45.5 cm         Seat Height (in the middle)       83.5 cm
Bars, height
Bars, height 100.0 cm Bars, width 90.0 cm Pegs, height 30.5 cm Pegs, width 45.5 cm Seat Height (in the middle) 83.5 cm Fork Angle: 31.5 degrees measured; 31.0 degrees claimed Weight:
Bars, height
Bars, height 100.0 cm Bars, width 90.0 cm Pegs, height 30.5 cm Pegs, width 45.5 cm Seat Height (in the middle) 83.5 cm Fork Angle: 31.5 degrees measured; 31.0 degrees claimed Weight: Claimed 100 kg; actual: 98.5 kg, ready to go but without gas;
Bars, height 100.0 cm Bars, width 90.0 cm Pegs, height 30.5 cm Pegs, width 45.5 cm Seat Height (in the middle) 83.5 cm Fork Angle: 31.5 degrees measured; 31.0 degrees claimed Weight: Claimed 100 kg; actual: 98.5 kg, ready to go but without gas; 43.0 front, 55.5 rear
Bars, height
Bars, height
Bars, height
Bars, height
Bars, height 100.0 cm Bars, width 90.0 cm Pegs, height 30.5 cm Pegs, width 45.5 cm Seat Height (in the middle) 83.5 cm Fork Angle:     31.5 degrees measured;     31.0 degrees claimed Weight:     Claimed 100 kg; actual: 98.5 kg, ready to go but without gas;     43.0 front, 55.5 rear Brakes: Front Diameter 130mm, cable operated Rear Diameter 160mm, rod operated Instruments None Lights None
Bars, height
Bars, height 100.0 cm Bars, width
Bars, height

Continued on page 76

Silencer:

Yes, welded on the pipe;
Quiet enough for MX racing
Spark Arrestor.....

Warranty ......None

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Forward-Mount Swing Arms
Available for: CR125, CR250, XR75,
250YZ, MX250-500, TM125, TM250,
TM400, KX125, KX250, KX450, Husky,

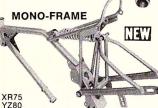
# LAY-DOWN TOP KIT \$26.95

CR125, 250 MX250-500

Available separately from Lay-Down Kit.

FORWARD MOUNT TOP KIT for CR125, 250, XR75 ......

SWING ARM BUSHINGS Bronze. CR125, 250 TM125, 250. \$12.95



DG's Mono-shock frame uses 4130 chromoly with gold-anodized cad-mium plating. Heliarc welded for max. strength. Won't scratch, chip or peel. Stock components fit. Frame only

XR75	\$295.00
YZ80	\$325.00
with Gas Bilstein shock	
XR	\$349.00
YZ	\$379.00

\*SOON AVAILABLE...CR MONO-FRAME WITH TWIN PARALLEL SHOCKS. \*

# **NEW PIPES FOR 1975**

The TORQUER Completely new design.

CR125 .... \$48.95, CR250 .... \$58.95 The TORQUER-TOO \$48.95 for KX125, KS125, TM125, YZ125, YZ80



# MR175 ENDURO PIPE

for the hot new Honda ... with spark arrester \$64 Enduro Pipes also for MT125 (\$47.95), MT250 (\$57.95), \$64.95 MR50 (\$42.95).

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All aluminum for XR75 \$42.95 Available soon for other makes and models.

Steel Tiger Torquer, XR75 .... \$32.95 XL70 and SL70 ...... \$31.95

**NEW CR250 RADIAL HEAD** 



13 radial fins for superior cooling.

NEW! NEW! NEW! NEW DG DOES IT AGAIN! 17-FIN CR125 RADIAL HEAD. Still only \$39.95



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Exact "RC" Replica Gas Tank. Exact "RC" Replica Gas Tank. Maico-type fiberglass construction like the big enduro bikes... Bultaco Montessa, Penton, etc. Looks like the Honda Factory Race Team equipment. Honda Red or DG Yellow. Uses stock Honda gas cap.

DG's 100cc KIT for CR125 \$250.00



New concept, no reed. Includes: Radial Head, Mikuni Carb, Cylinder Liner, Piston, Rings, Gasket, press-ing cylinder liner into your barrel ing cylinder liner in and custom porting.



81cc BIG BORE KIT for XR75 and SL70

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Element (the Phase II by JT).
Larger air volume for increased
performance.
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filter included

NEW



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NEW

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The "rebuildable" in 11.75 or 13".

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DG logo T-SHIRT ....... \$4.50 100% cotton, assorted colors, S-M-L.

DG logo Racing Jersey \$12.95 Hi-qual. nylon. Gold with blue logo. S-M-I

DG logo SWEATSHIRT \$7.95 Hi-qual., 50% polyester, 50% cotton, S-M-L-XL.



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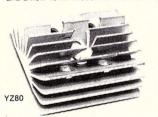
# HERE IT IS!



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A totally new design concept: new combustion chamber provides more horse-power instantly. Dyno-testing shows the 17-fin design reduces head and exhaust temperatures by as much as 100 degrees. New manufacturing method keeps price low. Available now for CR125 ... \$39.95

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NEW! NEW! NEW! NEW Radial Head for YZC Mono and Suzuki RM125 \$39.95

Now available from DG

# The Gas Girling Shock



Now you have a choice Aluminum or Chromoly

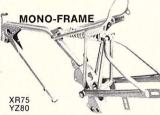
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LAY-DOWN

FORWARD-MOUNT





DG's Mono-shock frame uses 4130 chromoly with gold-anodized cadmium plating. Heliarc welded for max. strength. Won't scratch, chip or peel. Stock components fit. Frame only XR75 \$295.00 \$325.00 with Gas Rilstein shock

with Gas Bilstein shock XR YZ \$349.00 \$379.00

\*SOON AVAILABLE \* CR MONO-FRAME



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Suzuki RM125 Pipe ...... \$48.95

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helps you keep a grip on your machine.
Available in Mikkola red, white and blue;
Team Yamaha white-yellow and black;
Team Husky blue with yellow strip; Team
Maico red-black and yellow .... \$99.85

# MAICO/YAMAHA

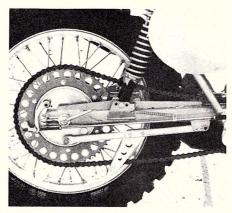
Continued from page 73

50-meter dash because you can second-gear it if you remember to start with lots of r's. We never got to perform the mods in the factory Hausmitteilung because we got the info too late. They claim it should add three horses at the crank. Maybe that would have equalized the fast straightaways.

Yamaha has a better clutch and a better indicated gearbox (no false neutrals). It also scores for its CD ignition over the Maico's points. We consider the round a slight win by the Yamaha, but even that small edge disappeared for our novice riders; they felt that the Maico power was easier to go fast with, especially on our SoCal adobe. The Yamaha wanted more traction. Score this round yourself on your riding and your local tracks.

Handling.

hands-down, but the Monocross wins at the rear, also without a shadow of doubt. Especially the way the bikes come out of the box.



in all three We tried the shocks positions. It doesn't make much difference, the suspension will bottom in all three, but the steering is a little better in the rear position. Chain is still sawing through the chain guide slowly but surely. New brake rod arrangement is a great improvement over the previous setup. Yes, the chain has to be run this loose.

The Yamaha's front end is good, just not as good as the Maico's. But Round Two: Suspension and the Maico needs a new pair of shocks, and even then there's still a Maico wins the front end race question about its rear end. Nonmonoshock suspension can be made to work — look at the Suzuki RM125 and the GP Huskys — but it can't be done with double-sleeved, oil-

damped shock absorbers that belong on a street bike.

About the only criticism you can lay on the monoshock is that it's hard to service (impossible without the tools) and seems to need more maintenance than a conventional rear end — but it'll probably last a lot longer than a pair of shocks, too.

And handling: the Maico is easier to turn and more maneuverable in tight spots, better for MX — and it'll slide gracefully. The Monocross is more stable going in a straight line, better for desert. Since we are testing motocross bikes, the Maico wins.

Round Three: Expected Reliability.

Other than the drive gear coming loose, we had no problem with our MX250B. The air cleaner arrangement is too complicated and requires a lot of work, but it performs. The same goes for the monoshock.

On the other side, the Maico clutch started slipping, the intake manifold broke, and the fork seals leaked all the time. At least the bike is simple to service, and from our past experience with Maicos, we

Continued on page 78





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I am turned on ... please enroll me as a member of the International Motocross Association. I have enclosed my \$8.00 membership fee.

D5-10



# MAICO/YAMAHA

Continued from page 76

suspect that with the proper maintenance, their reliability will be excellent.

Though this may be opposed to your preconceptions, we'd say that the Yamaha is going to require more preventive maintenance than the Maico. But it's also going to last longer.

Since both bikes are new, we can't judge long-term reliability.

No score.

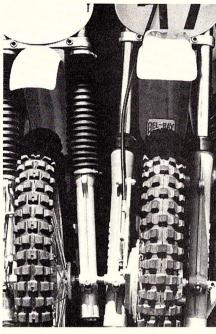
Round Four: Chassis and Detailing.

The MX is complicated; the Maico is simple. The Yam footpegs are the least bad and they're easy to fix with a round file. The Yamaha has better brakes. Air cleaner is better on the Maico. Although the Yamaha has the original snake pipe, we judged it better than the Maico's low pipe; only one of our test riders got toasted frequently and the pipe is protected from the abuses of riding. D.I.D rims on the Yam are better than the shoulderless Akronts on the Maico.

Weights are 98.5 kilos for the

Yamaha and 103.5 for the Maico, neither with gas, but ready to go otherwise.

We have to say that the Yamaha has the most potential — if you put in the extra work.



The new forks (right) are longer and heavier with lots of travel. Unfortunately the fork boots are canned this year. Notice the higher fork crowns.

Round Five: Money.

Yamaha (suggested retail) . . . . . \$1288 Maico (suggested retail) . . . . . . \$1748

# **Parts Prices**

# YAMAHA:

Piston																		\$1	8.	62
Rings (1)																		.\$	5.	30
Clutch Lever																				
Brake Pedal.																		.\$	7.	74
Shift Lever																		.\$	6.	86
Set of Clutch	F	9	а	t	2	s	((	6	)	2 14	20 0	3	33	3.	1	8	+	\$	1.	50

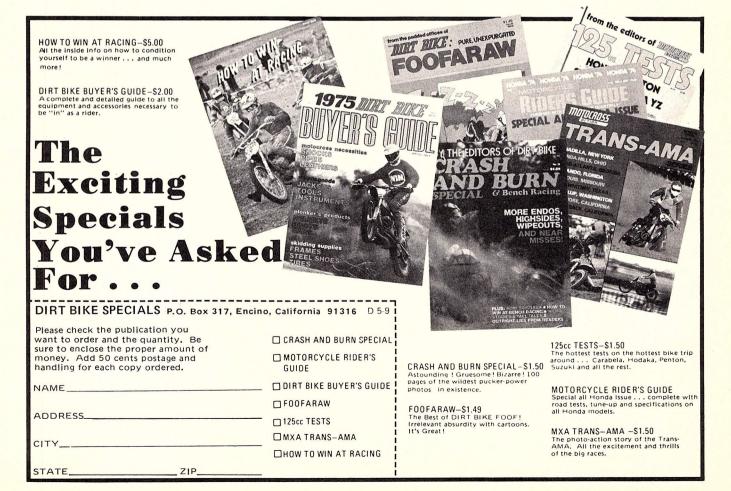
## MAICO:

Piston-complete w/ring, pin, clips .\$49.84	ļ
Rings (1)	5
Clutch Lever	
Brake Pedal \$20.86	ò
Shift Lever	3
Set of Clutch Plates (6) \$9.55 + \$2.50	)

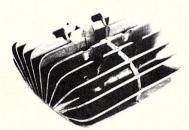
The winner in this round is obviously the Yamaha.

# SUMMATION

The Yamaha has narrowly won the rounds two to one before you add your own scores. Does that mean that it's a better bike? Yes, we think so; it has more potential and can be used for more things (MX, desert, trail) if you are ready to put up with the extra work to set it up right for yourself, and then the extra service work every week. And the price is right.



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Boge shocks available from 10.75 to 13.50 Retail price - \$52.95



CR125 and CR250 laydown top kits
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CR125 heavy duty clutch springs Retail price \$6.95 set of 6



Retail prices for porting, Novice through Pro -from

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\*(Phone or write for further information.)



XR75 Porting

Int. stage retail \$26.95 exch. Pro. stage retail \$60.00 exch.



CR front fork booster springs Specify model Retail price \$4.95 per pair



81C C Big bore Kit comp.

Retail price — \$32.95



XR-75 needle bearing cam & tower
Retail price - \$39.95
exch.



Lightened & balanced crank assembly
Retail price — \$29.95



XR-75 aluminum exhaust flange Retail price — \$8.95



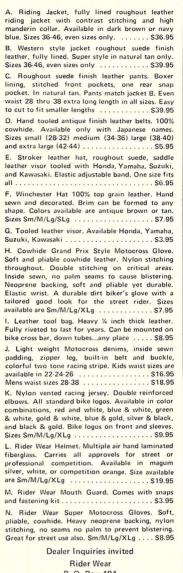
XR-75 intake manifold Retail price — \$16.95

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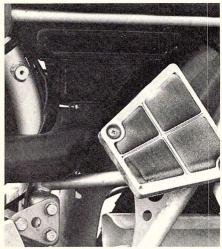


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# RL250 Continued from page 59

Like other Japanese bikes the drive chain is the smaller 428 instead of the 520 the Spanish use. Stock gearing is 15/54. Suzuki has an 14-tooth countershaft optional sprocket that works better for competition. There's a little mud cover over the countershaft sprocket.



Waffle-type air cleaner slips into toaster. Stereo cassettes are optional.

Four-ply IRC rubber, 2.75x21 Trials pattern. 4.00x18. Shoulderless Takasago alloy rims, one rim lock up front, two on the rear.

You can order a stainless steel flywheel weight from Lynn Barnes, 15611 Yermo, Whittier, California 90603. The price is \$35.

# SUMMATION, SUMMARY AND CONCLUSION, FINAL REMARKS AND FINISHING THOUGHTS

The RL250 is not as good as the Spanish bikes. Even so, reaching in the good ol' cliche grab bag, it has proven to be competitive, usually with modifications. We gave you the usual modifications. You don't see too many of them here in Southern California. As this is written there's only two or three in the Expert class, more among the more mortal riders. Five of the 32 finishers at the National Series opener were on RLs. We're told it's a popular bike in Arizona. Bruce and Dave Ryhti from grabbed Minnesota National numbers 12 and 24 last year and after the first three rounds this year Bruce had a second and sixth.

You know the primary complaint. Lack of flywheel. Maybe the engine or the pegs should come forward a little. Maybe. Opinions vary. Better forks.

What riders like about the bike is

below the suggested retail), its ease of maintenance, primary kickstarting, its light flick-it-around feel, excellent ground clearance, hasslefree performance and its trailbike capabilities.

Should you buy one? Maybe. It all depends. Another cliche. Ride it

its price (in some areas it sells well yourself. It is a different ride. Gearing and flyweight changes improve it significantly. We held onto our test bike for several months. Rode it in a couple of trials, a lot on the trails. Never gave us a problem, except the silencer fell off. Make the modifications and it gets closer to the Spanish bikes for competition.

PRODUC

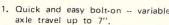


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**BULTACO** Continued from page 38

Nylon lined cables.

Cam-type chain adjuster.

Pirelli rubber - 4.50x18 and 3.00x21.

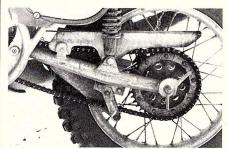
Eight hunks of rubber jammed into the cylinder to deaden decibels.

Miura Products makes a lighter plastic bash plate for the Frontera.

Taillight is rubber mounted on stock fender.

Pipe forces big-footers to position right boot forward on the peg.

Remove two bolts in side panel to service air cleaner.



# WAVING BYE-BYE

The Frontera is a Two Day Qualifier, a professional machine meant for serious haulin'. It may not appeal to some riders inclined toward more leisurely, bompingalong cowtrailing. The Frontera fits more into the "it demands to be ridden hard" category. We held onto it for a longer than normal testing period, subjecting it to two pretty demanding Oregon mud and water tests. Problems: the ignition wiring failure that better prep might have prevented, the balky second gear, the inability to run at 7000-foot altitude without rejetting, and a frayed points wire. The balky second was the result of overkill; a heavier, (non-stock) detente spring was used in setting the bike up for Trask.

How does it stack up with the other Two Day machines available? Opinions vary. We asked all our riders for their favorite and it got some mention, along with the Penton and the Husky and the Super Pioneer and a modified Elsinore. What it all means is that there is no one ultimate bike for the class, at least as far as our nine or ten riders were concerned. So how about a wishy-washy conclusion? It's a good bike, has good power and prefers to be ridden hard. A percentage of riders will think it's the greatest thing since instant oatmeal, the rest will just think it's a good bike in a market of good bikes to choose from. - So it goes.





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# WRENCH Continued from page 27

you can figure that the idle jet is too small. Take it out, show it to your friendly local parts man and get one that is the next size larger. If that doesn't do it, get still another size

Suppose you are backing out the idle air screw and the engine just keeps running faster and faster until finally the screw falls out of the carb. It should have been too lean long before you got the idle air screw all the way out, so you can figure that the idle jet is too big and is letting too much fuel through. Try a smaller one.

Most shop manuals tell you to turn the idle air screw all the way in and then back it out a specified number of turns for a good idle. Usually this is around one or two turns out. If you can't get a good idle with this setting or close to it, the idle jet is the wrong size. If you can get a good idle anywhere in the adjustment range of the screw, many riders think it's a victory over evil forces and leave it that way. They don't know they are paying a hidden penalty!

# **HIDDEN PENALTY**

The idle system does more than just idle. When you are opening the throttle by lifting the slide, the main system is supposed to take over and the idle system is supposed to gradually cease delivery of mixture. The transition between these two systems is critical to good performance when you first crack the throttle, and on up to about one-eighth open.

There are two factors that aid transition from the idle system to the main system. One is the setting of the idle system itself. In fact, some tuners set idle as just described and then test throttle response opening the throttle. They slightly different idle air screw settings either way from best idle to see if that gives better throttle response off idle.

If the setting of the idle air screw is not around one or two turns out or whatever the manual says - it's likely the jet is the wrong size and the throttle response coming off idle will suffer. You are better off changing idle jet sizes until you can get the idle air screw setting where it belongs.

Continued on page 87



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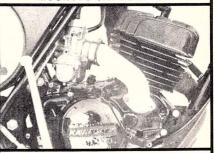
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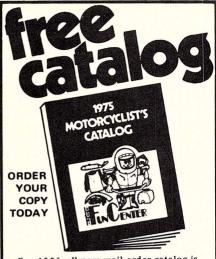
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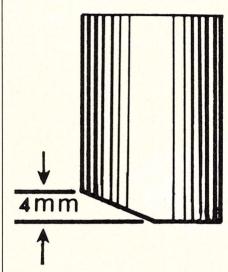
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# THE OTHER THING

The other thing that affects throttle response coming off idle is the throttle slide cutaway. Notice that a V-shaped section has been removed from the bottom of the throttle slide, with the open end of the V facing toward the mouth of the carb. The amount of cutaway is indicated by a number stamped on the slide. A higher number means more cutaway.



The great mystery of throttle slide cutaway.

More cutaway makes the mixture lean. Less cutaway makes it richer.

If your scooter stumbles and balks when you open the throttle part way and seems to hesitate briefly before giving you a surge of power, the off-idle mixture may be too lean. Try a throttle slide with less cutaway.

If it stumbles and balks when you suddenly jerk the throttle wideopen, it isn't throttle slide cutaway because when the slide is instantly jerked up to the roof, cutaway doesn't have a chance to do much. There are some bikes you just can't do that with, especially if you have screwed on a larger carbonater.

# GRATEFUL **ACKNOWLEDGEMENTS**

You'll be grateful to know that Foster of Marvin Hodaka Motorcycles came all the way from Athena, Oregon, to furnish the illustrations for this episode. They are from a Hodaka shop manual.

**NEXT MONTH** There will be an orderly meeting.



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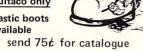
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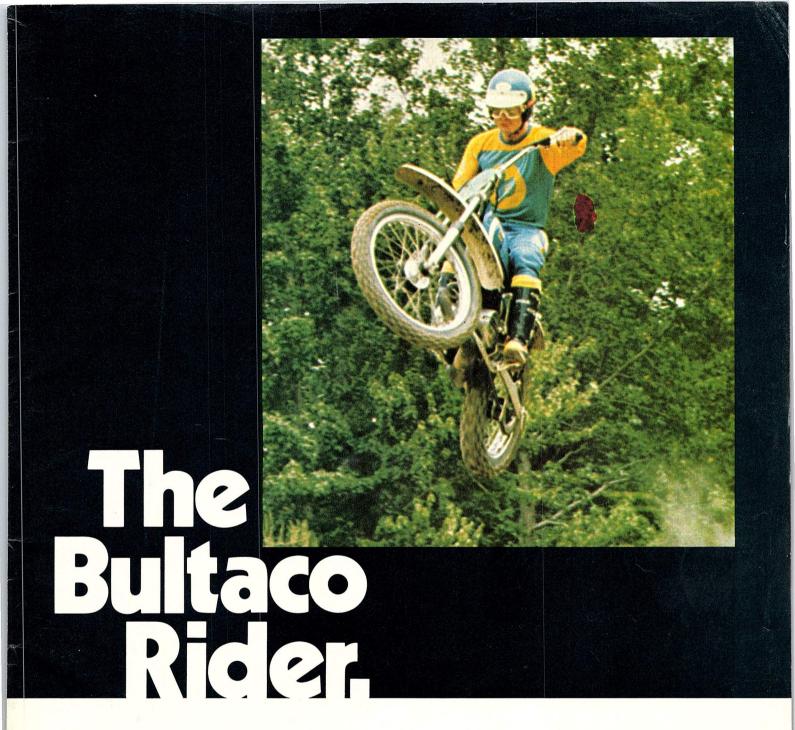
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